

DRAFT ENVIRONMENTAL IMPACT REPORT

**YERBA BUENA REDEVELOPMENT
PROJECT AREA EXPANSION /
EMPORIUM SITE DEVELOPMENT**

San Francisco Planning Department • San Francisco Redevelopment Agency

98.090E

STATE CLEARINGHOUSE NO. 98072072

DRAFT EIR PUBLICATION DATE: OCTOBER 24, 1998

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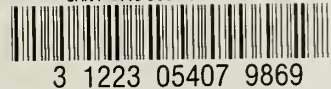
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DATE: October 24, 1998

TO: Distribution List for the Yerba Buena Redevelopment Project Area Expansion /
Emporium Site Development Draft EIR

FROM: Hillary Gitelman, Environmental Review Officer

SUBJECT: Request for the Final Environmental Impact Report for the Yerba Buena
Redevelopment Project Area Expansion / Emporium Site Development project
(Planning Department File No. 98.090E)

This is the Draft of the Environmental Impact Report (EIR) for the Yerba Buena Redevelopment Project Area Expansion / Emporium Site Development project. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Summary of Comments and Responses" that will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the Draft EIR will automatically receive a copy of the Comments and Responses document, along with notice of the date reserved for certification; others may receive such copies and notice on request or by visiting our office. This Draft EIR together with the Summary of Comments and Responses document will be considered by the City Planning Commission in an advertised public meeting and certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final EIR. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one, rather than two, documents. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them. If you would like a copy of the Final EIR, therefore, please fill out and mail the postcard provided inside the back cover to the Major Environmental Analysis Office of the Planning Department within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.



DRAFT ENVIRONMENTAL IMPACT REPORT

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Yerba Buena
redevelopment project
1998.

**Yerba Buena Redevelopment Project Area Expansion
Emporium Site Development
Draft Environmental Impact Report**

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I. SUMMARY

A. PROJECT DESCRIPTION

The proposed project would expand the existing Yerba Buena Center Redevelopment Project Area, requiring amendments to the *Yerba Buena Center Redevelopment Plan*, the *Design for Development* document and conforming *San Francisco General Plan* text and map amendments. In addition to these and other related legislative actions and approvals, the project would include development of the Emporium Site by Forest City Development to provide new retail, entertainment and hotel uses.

This EIR uses three terms to describe project boundaries and components: the Project Site, which encompasses the entire proposed expansion of the Redevelopment Area; the Emporium Site, which encompasses the Emporium Building and adjacent warehouse and office buildings between Market and Mission Streets; and the Fifth and Mission Garage, which includes about three- quarters of the garage and ground-floor retail space.

The Project Site includes parts of two blocks, the first bounded by Market, Fourth, Mission, and Fifth Streets, and the second by Mission Street, Fourth, Minna, and Fifth Streets. The Project Site consists of Assessor's Block 3705, Lots 9, 10, 12, 13, 14, 15, 17, 18, 33, 38, and 43, and part of Assessor's Block 3724, Lot 67. The Emporium Site consists of Assessor's Block 3705, Lot 43, the Emporium Building; Lots 13, 14, and 15 were formerly warehouse and office buildings for the Emporium; Lots 9, 10, 12, 33, and 38 are mixed-use retail and office buildings; and Lots 17 and 18 are currently parking facilities. The Fifth and Mission Garage Site, Block 3724, Lot 67 is the western two-thirds of the Fifth and Mission Garage; the eastern one-third of the garage (the remainder of Lot 67) is already within the Yerba Buena Redevelopment Project Area. The Project Site totals about 295,000 square feet.

The Emporium Site is within a C-3-R (Downtown Retail) district, and is within three Height and Bulk Districts: 120-X, 160-S, 160-F. The Fifth and Mission Garage Site is within a (P) Public District and three Height and Bulk Districts: 90-X, 160-F, and 340-I. The project would include redesignating height and bulk districts on the Emporium Site to 135-X, 200-X and 340-X.

The Emporium Site development would include new retail, entertainment, restaurant, cinema, and hotel uses. The project would retain and restore the Market Street facade of the former Emporium department store. The existing Emporium dome would be dismantled (if necessary), restored, and raised to a location above the roof of the new building, about 136 feet above Market Street. The project would demolish and replace 10 other existing buildings on the Emporium Site between Market Street and Mission Street with the exception of the American Type Foundry Building at 820 Mission Street, vacate a portion of Jessie Street currently used as a through connection between Fourth and Fifth Streets, and realign Jessie Street as a public street with mid-block connections of Fourth Street to Mission Street and Fifth Street to Mission Street. The two proposed segments of Jessie Street are referred to herein as Jessie Street East and Jessie Street West.

Total development on the Emporium Site would be about 1,575,000 gross square feet. Existing buildings on the site total about 630,000 square feet. The new building would include about 915,000 square feet of retail space, 360,000 to 400,000 square feet of which would be a Bloomingdale's Department Store occupying space from the basement level to Level 4. The basement level would reestablish direct connections to the Powell Street BART and MUNI Metro station under Market Street, formerly available through the Emporium. The Bloomingdale's frontage on Mission Street would serve as the main street entrance to that store. Levels 5 through 6 would contain about 200,000 square feet of entertainment uses and a 110,000-square-foot multiplex cinema with up to 25 screens, accommodating about 6,000 seats. A hotel tower is proposed to be constructed above Level 6.

A 464-room hotel tower, comprising about 350,000 square feet, would rise up to 10 to 12 floors above the retail/entertainment complex. The hotel would be served by a vehicle drop-

off area and entrance lobby on Mission Street near Fifth Street and Jessie Street West. The L-shaped hotel tower would be oriented along the Mission Street frontage and the westerly portion of the project. Forest City Development is considering two hotel tower variants. Hotel Variant 1 would be a 10-floor hotel tower rising 279 feet above Mission Street to the top of the mechanical penthouse. Hotel Variant 2 would be a 12-floor hotel tower rising 303 feet above Mission Street to the roof of the mechanical penthouse. The project also would include a pedestrian bridge serving the project from the existing Fifth and Mission Garage.

B. MAIN ENVIRONMENTAL EFFECTS

The Initial Study published on July 18, 1998, found that land use, population, utilities and public services, biology, geology and topography, water, energy and natural resources, hazards, and archaeological resources would not cause potential significant environmental effects and required no further analysis. Land use is included in the EIR for informational purposes. Based on the analyses prepared for this EIR and summarized here, significant project-specific impacts that could not be mitigated included architectural resources, transportation and air quality. Whether or not the project is approved and constructed, traffic volumes and transit loadings in the site vicinity are projected to increase. These increases would lead to congestion, and potentially significant cumulative impacts may result. Cumulative increases in traffic congestion may in turn cause cumulative increases in criteria pollutants, and a degradation of air quality. The project would incrementally contribute to these potential cumulative effects.

LAND USE, PLANS AND ZONING (p. 47)

Most of the Project Site is within a C-3-R (Downtown Retail) district and is in 120-X, 160-S and 160-F Height and Bulk Districts. Lot 67, Assessor's Block 3724 is zoned P (Public), reflecting public ownership of the Fifth and Mission Garage. The *Yerba Buena Center Redevelopment Plan* would be amended to include the Project Site in the Yerba Buena Center Redevelopment Project Area. The Project Site would then be subject to the policies and development controls set forth in the *Yerba Buena Center Redevelopment Plan and Design for*

Development document. As a part of a Redevelopment Agency plan, the project would be subject to the City Planning Code only as expressly provided in the plan.

The project would change the land use at the Project Site from retail and commercial uses and surface parking, to more intense retail, restaurant, entertainment, and hotel uses. The Project Site is an area of San Francisco's downtown that is characterized by a concentration of retail activity focused on Market Street and Union Square, adjacent to South of Market (SOMA). Development further west is characterized primarily by mixed office, commercial and retail uses. To the south and east across Fourth Street is the Yerba Buena Center. The Yerba Buena Center Redevelopment Project Area includes the Moscone Convention Center, the Yerba Buena Center for the Arts, and Yerba Buena Gardens open space. Under construction at Yerba Buena Center are a Children's Center on the Fourth-Howard-Fifth-Folsom Streets block; the Sony Metreon, a multi-screen cinema with retail and entertainment uses on Fourth between Mission and Howard Streets; and the Four Seasons Hotel on Market Street between Third and Fourth Streets. Overall, the project vicinity is a retail, entertainment, hotel, convention, and cultural activities center serving residents and visitors.

ARCHITECTURAL RESOURCES (p. 61)

The Emporium Building was constructed in 1896. The building was devoted entirely for use by the Emporium store after its reconstruction due to the 1906 earthquake and fire, which destroyed all but the Market Street facade. While the building has gone through a series of alterations since that time, the Emporium Building is a significant architectural resource as the only remaining, primarily intact, early 20th century department store in San Francisco. As an extant building designed by the important San Francisco architect, Albert Pissis, it also contributes to the understanding of his influence on the City's architectural development. Its most notable architectural features are the seven-story Market Street facade comprised of sandstone blocks, the interior column and arch configuration in the interior wall, the dome and rotunda, and the four-story Jessie Street facade. The glass-domed rotunda, 102 feet in diameter and 51 feet high, intended to create an intimate interior space, marks the core of the

store's circulation system. The dome itself is constructed of steel and sheet metal with glass panels and is ringed by a pillared gallery.

Planning Code, Article 11, lists the Emporium Building as a Significant Building - Category I. It is also within in the Kearny-Market-Mason-Sutter Conservation District, designated in Section 1103.1 of the City Planning Code. The Emporium was rated '3' in the City's 1976 Architectural Inventory and was rated 'A' in the Foundation for San Francisco's Architectural Heritage 1979 survey. The 'A' rating is the highest rating assigned to buildings by the Foundation for San Francisco's Architectural Heritage.

The proposed project would retain, rehabilitate and restore the Market Street facade but demolish the remainder of the Emporium Building's exterior walls. The dome would be relocated to the roof of the new building. New construction is proposed to replace the area from the Market Street facade to Mission Street. Because the building is architecturally significant, as indicated by its Article 11 Category I rating, and meets the definition of an historical resource pursuant to CEQA Section 21084.1, the demolition of most of the building and alteration of many of its key architectural elements would constitute a significant adverse impact. Because the project would retain the Market Street frontage of the Emporium Building, and because it is one building in a large Conservation District, it is judged that the project would not have a substantial adverse effect on the overall significance of the Kearny-Market-Mason-Sutter Conservation District.

Ten other buildings occupy the Emporium Site, including several structures that were part of the Emporium operations. They include the 1916 Emporium Annex, the 1910 Red Cross Building, the 1917 Hulse Bradford Building, the 1913 Del Mar Hotel, and the 1933 Emporium Marking Building. All ten structures, with the exception of the American Type Foundry Building at 820 Mission Street, would be demolished. Although these buildings help to form a consistent early 20th-century group along Mission Street adjacent to the Emporium Building, they are not considered architecturally significant. None of these structures are listed as Article 10 City Landmarks, Article 11 Significant or Contributory buildings, are in the 1976 DCP Survey, are rated by Heritage, nor are within the Kearny-

Market-Mason-Sutter Conservation District. None meet the definition of an historical resource as set forth in CEQA Section 21024.1. Demolition of these buildings would not be a significant impact on architectural resources.

URBAN DESIGN AND VISUAL QUALITY (p. 85)

The project vicinity is a mix of newer mixed-use retail, hotel, and entertainment buildings to the south and east along Mission and Fourth Streets within the Yerba Buena Redevelopment Project Area, older mixed-use retail and office buildings to the north along Market Street, and hotel and retail activities west of the Project Site along Fifth Street and Mission Street. Building heights on the Project Site and in nearby areas range from two- to three-story commercial structures to seven- to nine-story retail and office buildings to the 360-foot, 39-story Marriott Hotel at Fourth and Mission Streets.

Seen from Market Street, the Emporium Building is part of a group of 7- to 12-story post-Earthquake development exhibiting a range of architectural styles. The Emporium Building is part of an ensemble on Market Street of older and more contemporary buildings with relatively consistent heights and street walls at the sidewalk line. The Mission Street frontage of the Emporium Site is a more diverse mixture of building heights and styles, including simplified classical and modern styles.

The proposed project would retain, rehabilitate and restore the Market Street facade of the Emporium Building and relocate the dome at the roof level of the new structure, and would demolish the remainder of the structure. The new retail frontage on Mission Street would serve as a main entrance to those uses. New construction on Mission Street and realigned Jessie Street would rise from lot lines or sidewalks up to the sixth level.

Neither Hotel Variant 1 nor Variant 2 would substantially change or obstruct views of the Emporium Building from Market Street. The relocated dome would be visible from some locations near Market Street. The visibility of upper floors of the hotel tower from Market Street would not be considered a significant adverse effect. From locations on Mission Street

near the site, the full height of the project would be visible, a noticeable change from the existing scale of development on that portion of the Emporium Site. The scale of the new 279- to 303-foot building would be similar to that of other development in downtown and in the Yerba Buena Center Redevelopment Project Area, such as the 360-foot Marriott Hotel. The project would not obstruct major views from public open space such as Hallidie Plaza or Yerba Buena Gardens. A pedestrian bridge, enclosed with glass windows, would be about 60 feet above the street. With short-range views, the bridge would be a new element in the Mission Street corridor, but would not directly block views of Yerba Buena Island. From longer range locations, existing views of Yerba Buena Island could be intermittently blocked by the pedestrian bridge, depending upon the location of viewers (pedestrians or riders in vehicles) along Mission Street. Overall, the project would not have significant adverse effects on urban design and visual quality.

SHADOW AND WIND (p. 99)

The existing buildings on the Project Site cast shadows on streets and sidewalks in the project vicinity. Existing open space areas in the vicinity of the site include Hallidie Plaza, Union Square, and Yerba Buena Gardens.

The project would not shade Union Square, the nearest open space area in Recreation and Park Department jurisdiction, at any time. Open space areas that would theoretically be affected by the project include Hallidie Plaza and Yerba Buena Gardens, but existing buildings currently shade those open space areas. The project therefore would not add shade to Hallidie Plaza or Yerba Buena Gardens at any time. Streets and sidewalks in the area could experience additional shading, as described in this analysis, as is common and accepted in urban areas.

Wind tunnel tests were conducted for the Project Site in a base case, including approved projects and projects under construction, and for the project with two possible hotel tower configurations. In the base case, wind speeds range from 6 to 18 miles per hour at the 32 locations tested, 12 of which currently exceed the 11-mile-per-hour pedestrian comfort

criterion. The locations where the comfort criterion is currently exceeded on sidewalks are along Market Street adjacent to the project, along Jessie Street at Mission Street, along Fourth Street between Jessie and Mission Streets, and along Fifth Street between Mission and Jessie Streets. The comfort criterion is also exceeded at two locations on the roof of the Fifth and Mission Garage. There were no exceedances of the hazardous winds criterion with the base case.

With the proposed project, the predicted frequency of winds that would exceed the hazardous wind criterion at one location on the roof of the Fifth and Mission Garage near Fifth Street would be 2.0 days per year with Variant 1 and 1.5 days per year with Variant 2.

The project would include mitigation measures to provide wind shelter elements on the rooftop of the garage to eliminate that hazard exceedance.

TRANSPORTATION, CIRCULATION, AND PARKING (p. 119)

Transportation impacts of the proposed project were analyzed by comparing conditions that would result from project operation to the existing transportation setting. Future cumulative effects were assessed by considering the project's contribution to activities projected to occur in the vicinity of the project once facilities that are under construction or are planned are in operation, in combination with other reasonably foreseeable future development in the downtown area.

Existing traffic conditions were evaluated for the weekday PM peak hour (generally between 4:30 and 5:30 PM) at nine study intersections representative of conditions near the Project Site, and leading to major freeway ramps. The intersection of Fourth and Harrison Streets, at the I-80 westbound on-ramp, currently operates at LOS F. All other study intersections are currently operating at acceptable traffic conditions (LOS D or better) during the weekday PM peak hour. Observations show that non-transit vehicles often use the exclusive bus lanes in Mission Street and that there is limited enforcement. If the bus lanes were fully enforced,

the intersection of Mission and Fifth Streets would operate at LOS F because of reduced vehicular capacity.

Project-related vehicle trips added to existing conditions would result in six of the nine study intersections continuing to operate at acceptable levels of service (LOS B and C). The intersection of Howard and Fourth Streets would change from LOS C to LOS E and the intersection of Howard and Fifth Streets would change from LOS C to LOS F, a significant impact of the project. The intersection of Harrison and Fourth Streets would continue to operate at LOS F, but would experience longer delays with the addition of project traffic. With full enforcement of the bus lane, the Mission and Fifth Streets intersection would remain at LOS F with the addition of project traffic, but would experience greater delays.

In 2015, the intersections of Howard and Fifth Streets and Harrison and Fourth Streets would continue to operate at LOS F, with increased delays due to cumulative growth. Conditions at Howard and Fourth Streets would further change from LOS E with existing-plus-project conditions to LOS F under cumulative conditions. Based on the cumulative conditions in 2015 at intersections near freeway ramps, other arterials and intersections may experience significant congestion through the South of Market area. These congestion impacts can be reduced but not eliminated by mitigation measures identified in the EIR.

The Project Site is readily accessible by public transit, with 24 San Francisco Municipal Railway (MUNI) bus lines and 5 MUNI Metro subway lines within a two-block radius of the Project Site. BART, and SamTrans and Golden Gate Transit buses provide direct regional transit service from stops adjacent to the Project Site. Caltrain, AC Transit bus, and ferry services are available within six blocks of the site.

MUNI service was analyzed in terms of a series of screenlines—hypothetical lines that would be crossed by persons traveling between downtown and vicinity and other parts of San Francisco and the region—and sub-corridors within those screenlines. With the project, all MUNI screenlines and sub-corridors would continue to operate within the MUNI standard, with capacity utilization ranging from a low of 65% across the Northeast screenline to 85%

across portions of the Southeast screenline. This level of use would not exceed the MUNI service standard of 100% of capacity for the corridor conditions, although some lines and some individual vehicles would continue to experience extremely crowded conditions during peak period travel. The addition of project-related passengers on the regional transit systems would not have a substantial impact during the PM peak hour in the outbound direction.

The projected growth in MUNI ridership by the year 2015 is expected to exceed the operating capacity for the Northeast, Northwest and Southwest screenlines, creating unacceptably crowded conditions on most bus lines in these corridors. The project would contribute less than 1% to the 2015 cumulative MUNI ridership. While BART and AC Transit would substantially exceed operating capacities during the PM peak in 2015, the project would contribute less than 1% to these and other regional transit systems.

Cumulative congestion, including localized congestion related to pedestrian volumes, parking shortfalls, and the introduction of multiple access and egress points along Mission Street, would potentially increase some transit delays through the project area.

There are about 7,655 publicly available off-street parking spaces in the project vicinity. Of the facilities surveyed, the overall occupancy was estimated to be about 80% (about 1,620 unoccupied spaces) during the weekday midday period (1:00 - 3:00 PM) in March 1998. The project would displace about 10 on-street parking spaces and about 77 off-street spaces. The project would generate a daily demand for about 1,250 parking spaces, and would not provide any off-street parking. Parking demand from the project would thus reduce the number of unoccupied spaces within an approximate two-block radius and result in about 95% occupancy, exceeding the effective capacity of the projected parking supply.

Anticipated future development in the vicinity, including the project, would remove about 1,180 parking spaces. Future development would create about 1,015 new parking spaces, and would also add to the demand for parking (about 3,340 spaces). Parking conditions in the vicinity of the project in 2015 would be over capacity, with an estimated cumulative parking shortage of approximately 1,880 spaces during midday periods. With this anticipated parking shortfall, it would be relatively difficult to park in the nearby vicinity. Queues

would form at parking garage entrances on a more regular basis, and would disrupt traffic circulation in nearby intersections more frequently than under existing conditions.

Weekday PM peak hour pedestrian counts for six crosswalk locations on Market and Mission Streets in the project vicinity show that all seven study locations currently operate at LOS C or better. With the project, all crosswalks and the Mission Street sidewalk would operate at acceptable levels of service; the west crosswalk at Mission and Fourth Streets would operate at LOS D without the pedestrian bridge across Mission Street from the Fifth and Mission Garage, and at LOS C with the pedestrian bridge. The Mission Street sidewalk at the pedestrian drop-off area cut-out is currently designed to be about 7 feet wide and would operate at LOS F. Mitigation is identified that would address this impact.

Passenger pick-up and drop-off for the hotel would occur from a porte-cochere on Mission Street at Jessie Street West, accommodating about three cars. This space would not be sufficient to accommodate the demand for valet parking and passenger pick-up and drop-off for the hotel during peak hours. It is estimated that four to six spaces would be needed, and that about two to three taxi queuing spaces would be needed for the hotel. These needs could be addressed by mitigation measures identified in the EIR, as could the potential demand for a tour bus loading area for hotel guests.

The project would include a loading area with 14 off-street loading docks, to be accessed from Jessie Street West. The project would result in a demand for 12 to 15 loading spaces; during the peak hour, with a demand for 15 spaces, the project would have a shortfall of one loading space. Trucks would use westbound Mission Street and reconfigured Jessie Street West to access the project's loading area (no left turns would be allowed from eastbound Mission Street to Jessie Street west). The roadway, sidewalk widths and corner radius proposed for Jessie Street West would allow trucks to make right turns directly into Jessie Street West from Mission Street and then either make another right turn directly into the loading area or, during peak loading periods, make a left turn and back into the loading area. With the increased loading traffic from the project, trucks and other vehicles on Jessie Street West would experience delays of over 60 seconds at the intersection with Fifth Street. This

could cause a queue on Jessie Street West extending back to the internal 90° turn and possibly block the entrance to the project loading docks.

Reconfigured Jessie Street East would provide access for trucks destined to Pacific Center and Cole Fox Hardware, as well as other uses along Jessie Street on the east side of the Project Site. As with Jessie Street West, the configuration of proposed Jessie Street East would allow trucks to make right turns from Mission Street in one movement. No queuing would be expected at the intersection of Jessie Street East with Fourth Street.

AIR QUALITY (p. 157)

The primary source of air pollutants from the project would be motor vehicles. Because the Bay Area air basin sometimes violates state and federal standards for ozone, particulate matter, and carbon monoxide, the California Air Resources Board computer model URBEMIS5 was used to estimate project-related emissions for criteria air pollutants, including reactive organic gases and nitrogen oxides (ozone precursors), respirable particulates, and carbon monoxide. *Bay Area Air Quality Management District CEQA Guidelines* require detailed analysis of carbon monoxide emissions if project emissions would exceed 550 pounds per day. Project-related emissions of NO_x and PM₁₀ would exceed BAAQMD significance thresholds and would result in a significant impact on regional air quality. Carbon monoxide (CO) emissions would also exceed the screening threshold of 550 pounds per day; therefore, a micro-scale analysis of intersection CO concentrations was performed to assess the project's effects on local CO concentrations. It was found local CO concentrations would not exceed state or federal standards under existing-plus-project conditions. CO impacts are therefore considered less than significant.

Cumulative increases in traffic congestion may, in turn, cause cumulative increases in criteria pollutants, and a degradation of air quality. The project would incrementally contribute to these potential cumulative effects.

NOISE (p. 167)

The primary noise-sensitive land uses in the immediate vicinity of the Project Site are the Hotel Milano at the northeast corner of Fifth and Jessie Streets and Howard Johnson's Pickwick Hotel at Fifth Street between Jessie and Mission Streets. The Hotel Milano is six stories of rooms above a ground-level lobby and restaurant; the Pickwick Hotel building is seven stories above a lobby. Both hotels provide air conditioning in all guest rooms and operable windows in some guest rooms.

A noise survey was performed from about 7:00 AM to 8:30 AM, to sample ambient noise levels attributable to existing truck delivery activities along Jessie Street in the vicinity of these hotels.

On the basis of project loading activities, estimated noise levels on Jessie Street near Fifth Street would range from maximums (L_{max}) of about the mid to high 80s dBA and Single Event Levels (SEL) up to the mid 90s dBA close to the loading dock, and up to the high 70s dBA and mid 80s dBA SEL near Fifth Street. With closed windows, ground-floor noise levels within the hotels would range up to the high 50s dBA L_{max} and 50s to 60s SEL. Noise levels with open windows would be about 5 to 15 dBA higher. At higher floors, truck noise levels would be lower. Noise levels from trucks would also be attenuated by the enclosed loading area itself.

With windows open, upper-floor guest rooms at the Hotel Milano or Pickwick Hotel would be subject to L_{max} or SEL up to about 75 dBA. Together with the intermittent incidental loading noise (backup alarms, truck doors, brake squeal, etc.), these noise levels could disturb sleep. Sleep disturbance is more likely before 7 AM. While loading noise would create brief speech interference impacts at other times of day, they are likely to be negligible near the middle of the day, when most guest rooms would not be expected to be occupied. Because adjacent receptors can be shielded by closing hotel windows and loading doors, loading noise effects would not be considered significant with implementation of the proposed loading dock scheduling and operation procedures.

GROWTH INDUCEMENT (p. 175)

The project would include total development of about 1,575,000 gross square feet. The development would include 915,000 square feet of retail space, 200,000 square feet of entertainment uses and a 110,000-square-foot multiplex cinema. A 464-room hotel would occupy about 350,000 square feet. Employment at the site would increase to about 2,200. There are currently about 100 employees on the site.

It is possible that, if the project were successful, it could encourage similar development in the area. However, because such development relies on a variety of other factors, including availability of developable sites, economic and demographic change, and trends in tourism, growth-inducing effects cannot be directly linked to the project.

The project would be built in a developed urban area, and no expansion to the municipal infrastructure not already under consideration would be required to accommodate new development and increase employment due to the project.

C. MITIGATION MEASURES (p. 177)

Measures identified in this report to mitigate potentially significant environmental effects are summarized below. Mitigation measures are presented in full in Chapter IV. Mitigation measures would reduce but not eliminate the project's incremental contribution, to cumulative air quality impacts.

ARCHITECTURAL RESOURCES

Prior to the demolition of most of the Emporium Building, the project sponsor would prepare historic documentation, to Historic American Buildings Survey (HABS) recordation standards, which would include: a written description of the Emporium Building, and photographic documentation of the exterior of the Emporium Building. Copies of the narratives, photographic documentation, and measurements or drawings of the Emporium Building would be submitted to the City and County of San

Francisco Planning Department prior to authorization of any permit that may be required for demolition of the Emporium Building by the Agency.

In addition, the project sponsor would prepare and transmit the photographs and descriptions of the Emporium Building to the Landmarks Preservation Advisory Board, Bancroft Library at the University of California, Berkeley, the History Room of the San Francisco Public Library, and the Northwest Information Center of the California Historical Information Resource System.

WIND

To eliminate the hazardous wind condition identified at one location on the rooftop parking level of the Fifth and Mission Garage, the project sponsor would provide shelter sufficient to reduce winds to below the hazard criterion and avoid a significant adverse wind effect. These wind-reducing elements would be aligned to provide maximum wind shelter for a west-northwest wind direction, which is the direction that contributes most to exceeding the hazard criterion.

TRANSPORTATION

To reduce or eliminate unacceptable conditions at nearby intersections, implement the following:

- a. Adjust the signal timing at the intersection of Fifth and Howard Streets to account for the additional westbound vehicles, or

Re-stripe the westbound approach of the intersection of Fifth and Howard Streets to change an exclusive through lane to a right-through lane.

With the first option, conditions would remain at LOS F, but vehicle delays would be reduced. With the second option, the level of service would improve to LOS D, reducing the project traffic impact to less than significant. However, the second option would lead to increased conflicts between bicycles traveling on the right side of the street and turning vehicles. In addition, double-turn lanes would also increase the possibility of conflicts between pedestrians and vehicles.

- b. Re-time the signal at the intersection of Fourth and Howard Streets. This measure would improve operating conditions at the intersection to LOS D. No changes to the existing all-pedestrian signal phases have been assumed as part of this measure.

To encourage the use of transit, thereby reducing traffic congestion, implement the following measures:

- a. Provide transit information at key locations within the Project Site. Consider offering transit passes, tickets and tokens for sale. The transit information would include transit maps and schedules for all transit carriers (including MUNI and regional carriers) as well as bicycle route maps.
- b. Provide transit information on advertising and on circulars or flyers advertising merchandise or events at the Project Site.
- c. Provide incentives to project patrons for transit use such as discounts for patrons showing proof of transit use.
- d. Provide incentives to project employees for transit use, such as participation in the Commuter Check, Rides For Bay Area Communities, and/or other similar programs.
- e. Maintain direct access to MUNI and BART from retail and entertainment uses during all hours when project and transit are in operation.

Implementation of measures 3 and 4 would reduce but not eliminate the significant congestion expected as a result of the project and cumulative development in the vicinity.

To improve passenger loading areas and pedestrian safety, to reduce vehicle queuing, and to reduce potential secondary impacts on transit operations and traffic congestion, implement the following measures:

- a. Design the hotel porte-cochere at Mission Street near Jessie Street West to allow six cars to pick-up and drop-off hotel guests at the same time, plus a circulation lane.
- b. Establish a white zone (indented curb eight feet wide) on the north curb of Mission Street east of the hotel porte-cochere exit for taxi queues and passenger loading and establish a white zone on Jessie Street West for project tour bus loading.
- c. Maintain a sidewalk width of at least 10 feet on Mission Street for the length of the passenger loading zones (15 feet in front of the main store entrance) without reducing the current street width and street dimension. This measure would improve pedestrian LOS at this location from LOS F to D and maintain the existing west-bound transit-only travel lane in Mission Street.
- d. Create an additional passenger loading zone on Jessie Street East to provide for drop-off and pick-up of patrons for the theaters, restaurants, entertainment and retail uses.
- e. Ensure that proposed passenger loading bays on Mission Street do not overlap with the mid-block crosswalk to avoid conflicts between pedestrians in the crosswalk and vehicles picking up and dropping off at the proposed passenger loading bay on Mission Street.

- f. Provide "Lot Full" and other informational signage near entrances to the Fifth and Mission Garage, to reduce queuing and unnecessary vehicle circulation.
- g. Reduce the number of spaces rented on a monthly basis at the Fifth and Mission Garage to increase the number of spaces available for short-term use of garage during peak periods.
- h. During peak periods such as holidays or major events at Moscone Center, station Parking Control Officers at congested intersections to direct traffic and ensure pedestrian safety.

To reduce the effects of construction truck traffic on local streets during the morning and afternoon peak commute periods, implement the following measure:

Any construction traffic occurring between 7:00 AM and 9:00 AM or between 3:30 PM and 6:00 PM would coincide with peak hour traffic and could impede traffic flow. The impact of construction traffic would be a reduction in the capacities of the streets, slowing movement of traffic (including MUNI buses). Generally, during the construction period, construction truck movement should be permitted only between 9:00 AM and 3:30 PM to minimize peak hour traffic conflicts. The project sponsor and construction contractor(s) would meet with Interdepartmental Staff Committee on Traffic and Transit to determine feasible mitigation measures to reduce traffic congestion, including transit disruption and pedestrian circulation impacts during construction of the project. In addition, the project sponsor would ensure that the construction contractor(s) coordinate with any concurrent nearby projects that are planned for construction or become known.

AIR QUALITY

The project sponsor would require its contractors to spray the site with water (nonpotable water as required by San Francisco Ordinance 175-91) and sweep surrounding streets during demolition, excavation, and construction activities; spray unpaved construction areas twice a day; and cover stockpiles of soil, sand, and other material; and cover trucks hauling debris, soils, sand, or other such material.

NOISE

The project sponsor would require project construction contractor(s) to predrill piling and footing holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. The project sponsor would also require that contractors limit pile driving activity to result in the least disturbance to neighbors.

The project sponsor would implement guidelines for noise abatement procedures at the loading dock. Project truck deliveries and related loading/unloading activities at the loading docks would only be allowed to occur within the loading dock with the loading dock doors closed before 6 a.m. and after 8 p.m. on weekdays and before 7 a.m. and after 7 p.m. on weekends and legal holidays. In addition to the above-described time limitations, such measures might include the following:

- When feasible, trucks would turn into the loading dock rather than turning onto Jessie Street before backing, thereby reducing the extent of impact to hotel residents during truck arrivals and perhaps reducing the use of backup alarms.
- The loading area door would be kept closed, to the extent feasible, to limit external noise from loading activities.
- All unnecessary idling of truck engines would be avoided.
- Acceleration on Jessie Street would be limited to reduce engine and exhaust noise.

GEOLOGY

The project includes one or more geotechnical investigations by a California-licensed geotechnical engineer. The project sponsor and its contractors would follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project, including a pre-construction survey of existing conditions, and monitoring the adjacent building for damage during construction.

If dewatering were necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering, including whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, the project sponsor would retain a Special Inspector to perform monitoring, and determine if groundwater recharge would be necessary to halt settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor.

If dewatering were necessary, the project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

The project sponsor and its contractor would install necessary settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems would be modified as necessary in the event that substantial movements are detected.

WATER QUALITY

If dewatering were necessary, the project sponsor would treat, if necessary, pumped groundwater prior to discharge to the combined sewer system.

If dewatering were necessary, groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if necessary, to reduce the amount of sediment entering the combined sewer system.

The project sponsor would require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if necessary.

HAZARDS

The project sponsor would ensure that building surveys for asbestos, PCBs, lead, mercury, and other possible hazardous materials are performed prior to the start of demolition, and abatement would be carried out according to local, state, and federal laws, regulations, and standards.

CULTURAL RESOURCES

The project sponsor would retain an archaeologist to conduct a pre-excavation testing program. If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report. If the archaeologist determines that further investigations or precautions are necessary, he or she would consult with the Environmental Review Officer, and they would jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

If necessary, the project sponsor would implement additional measures such as a program of on-site monitoring of all site excavation. If evidence of cultural resources were found, the archaeologist would immediately notify the Environmental Review Officer, and the project sponsor would halt any potentially damaging activities.

Ground-disturbing activities could be suspended for a total maximum of four weeks over the course of construction. The archaeologist and the Environmental Review Officer would then recommend what measures should be implemented to minimize potential effects on archaeological resources, including possible archaeological testing, exploration or recovery programs. After implementation of such measures, the

archaeologist would prepare a report documenting the cultural resources that were discovered, and an evaluation as to their significance.

D. ALTERNATIVES (p. 191)

Four alternatives to the proposed development project were analyzed, including a No-Project Alternative. Any of these alternatives could be implemented with or without adoption of the *Yerba Buena Center Redevelopment Plan* amendment as proposed, but would require the other project approvals, such as street vacation and rezoning of height districts.

ALTERNATIVE A: NO PROJECT (p. 192)

The No-Project alternative would entail no change to the site. The proposed project would not be built. The Emporium Building would not be demolished and none of its existing architectural features would be altered or relocated. The building would become vacant in 1999. It is an unreinforced masonry building (UMB) and does not comply with present building codes. None of the buildings on the site would be demolished, and Jessie Street would not be realigned. The Downtown Plan would not be amended to include the Project Site in 135-X, 200-X, and 340-X Height and Bulk Districts. The San Francisco Redevelopment Agency and the City would not amend the *Yerba Buena Center Redevelopment Plan* to include the Project Site in the Yerba Buena Center Redevelopment Project Area. The Project Site would not be governed by the *Yerba Buena Center Redevelopment Plan* and *Design for Development* documents.

If the No-Project alternative were implemented, none of the impacts associated with the project would occur. The environmental characteristics of this alternative would be generally as described in the environmental setting sections of Chapter III. Land use, urban design, and shadow and wind conditions would not change.

ALTERNATIVE B: REDUCED DEVELOPMENT (NO HOTEL) (p. 193)

The Reduced Development (No Hotel) Alternative would include all elements of the proposed project, including demolition of most of the Emporium Building and alteration of some of its significant architectural features. The Market Street facade would be retained; the dome would be raised to a new location. It would include development of 915,000 square feet of retail and restaurant uses, and 200,000 square feet of entertainment uses, but would not include a hotel. Without a hotel tower as proposed, the new building's height would be about 138 feet along Mission Street, as compared to 279 feet with Hotel Variant 1 and 303 feet with Hotel Variant 2. With this alternative the General Plan would not amend the Project Site in a 340-X Height and Bulk District, but would be amended to include the first 100 feet from Market Street of the project in a 135-X Height and Bulk District with the remainder in a 200-X District. As with the proposed project, the San Francisco Redevelopment Agency and the City would consider amendments to the *Yerba Buena Redevelopment Plan and Design for Development* document to include the Project Site.

This alternative would change land use at the site. The alternative would include demolition of six existing structures and would develop the site with retail and entertainment uses that are more intense than current uses. Overall, land use conditions would change in a similar manner as with the project.

As with the proposed project, this alternative would demolish most of the Emporium Building and alter its important architectural features. Because the Emporium Building is a Category I Significant Building and meets the definition of an historical resource, this alternative, as with the project, would cause a significant adverse impact on architectural resources.

The Reduced Development alternative would not include a hotel tower; new construction would have a seven-story, 138-foot-tall building on the Emporium Site. The relocated dome with this alternative would be visible from some locations near Market Street. Upper floors of the hotel tower would not be part of views with this alternative. Overall, this alternative

would be less prominent in short-range and longer range views, compared to the proposed project.

This alternative, without a hotel tower, would reduce new shadows compared to the proposed project. In particular, the amount of new shadow on portions of Jessie and Mission Streets would be reduced. As with the proposed project, this alternative would not add significant shadows to open space in the vicinity. This alternative would reduce the number of ground-level locations at which the comfort criterion would be exceeded from 11 or 10 of 30 with Hotel Variant 1 or Hotel Variant 2, respectively, to 8 of 30 with this alternative.

Total peak-hour trips with this alternative would still result in existing-plus-project conditions at Howard/Fifth changing from LOS C to LOS F and at Howard/Fourth from LOS C to LOS E. As with the project, year 2015 cumulative effects would change the Howard/Fourth LOS from E to F; Howard/Fifth would remain at LOS F. This alternative would therefore cause significant adverse impacts on traffic conditions, as with the project.

ALTERNATIVE C: PRESERVATION ALTERNATIVE 1, CONSERVATIVE APPROACH (p. 197)

Preservation Alternative 1 would preserve the exterior and interior of the Emporium Building, with new construction allowing for appropriate use of the historic building and development of the adjacent portions of the Emporium. The alternative differs from the proposed project in its use of the Emporium, access to the site, the treatment of the Emporium dome and other historic features, the maintenance of Jessie Street, the absence of construction above the existing Emporium Building, and the mass and height of new construction south of the Emporium Building between Jessie and Mission Streets. Preservation Alternative 1 would be a conservative preservation approach to allow the continued use of the Emporium Building, and would apply rehabilitation treatments to those areas and features that are less important and that would require alteration for contemporary use.

The Emporium Building would be seismically upgraded using methods that would not alter its important features: the Market Street facade would be rehabilitated; the interior of the Emporium Building would be preserved as an open bay retail space, with its existing floor levels and column layout; and the dome and rotunda would be preserved at their original location and original height. The dome would be restored: infill panels and later glazing at the rotunda would be removed and its original features would be restored to the extent that historic documentation is available and in compliance with applicable building codes.

At roof level, the fifth-floor elements above the east and west wings and other miscellaneous rooftop structures and equipment added after 1908 would be removed. With the exception of the seven-story Market Street tower, all construction above the fourth-floor level would be demolished or rehabilitated. There would be no new construction, other than necessary mechanical work, above the existing fourth-floor roof level.

Jessie Street would be maintained as a thoroughfare between Fourth and Fifth Streets. The Jessie Street facade of the Emporium Building would be preserved as the demising (separating) wall of the original building, but would be altered to allow the development of visual and physical connections between the old and new portions of the project.

The existing structures on Lots 10, 12, 13, 14, 15, 17, 18, and 33 would be demolished. The new construction on this portion of the Emporium Site would be designed to be compatible with the historic form, features, and detailing of the Emporium Building. Its size and scale would be dictated by the height and massing of the Emporium Building. The structure would occupy the entire site from Jessie Street to Mission Street and would be five stories high (the approximate height of the Jessie Street facade of the Emporium Building); the western portion of the site, which would connect to the Emporium Annex site, would rise to a height comparable with that of the Annex, about nine stories.

With Preservation Alternative 1, the floor area of the Emporium Building would be approximately 480,000 gross square feet; the reconstruction of the Annex site would provide approximately 72,000 gross square feet; Jessie Street and the upper-level bridges would be

from 15,000 to 20,000 square feet; and the new construction south of Jessie Street would be from 480,000 to 520,000 gross square feet, for a total floor area of from about 1,047,000 to 1,092,000 gross square feet, as compared to about 1,575,000 gross square feet with the project.

Preservation Alternative 1 would change the intensity of land use at the Project Site, but to a lesser degree than the proposed project. The site would be developed with new retail and entertainment uses. Jessie Street would be maintained as a connector between Fourth and Fifth Streets, but would be depressed to allow service access below grade.

This alternative would preserve and rehabilitate the Emporium Building consistent with the *Secretary of Interior's Standards*. New construction adjacent to and connected with the Emporium would be designed to complement the Emporium Building. It would avoid the significant adverse impact which would result from demolition and extensive alteration of the Emporium Building, as proposed in the project. This alternative, with smaller overall development, would reduce other environmental effects of the proposed project.

ALTERNATIVE D: PRESERVATION ALTERNATIVE 2, MODIFIED APPROACH (p. 204)

Preservation Alternative 2 would preserve the most important exterior and interior features of the Emporium Building and adapt the building for new retail use, with the complementary development of the remaining portion of the Emporium. This alternative would be similar to the proposed project in its use of the site, development above Jessie Street, and the addition of new floors above the existing Emporium Building. It would differ from the proposed project in its treatment of the Emporium dome and other historic features, the extent of the new construction above the Emporium, and the mass and height of the new construction along Mission Street. Preservation Alternative 2 would apply preservation treatments to the most important historic features of the Emporium Building: the Market Street facade and certain interior features, with careful rehabilitation and alteration of the remainder of the

building. Adjacent new construction would be undertaken with fewer restrictions than with Preservation Alternative 1.

The Emporium Building would be seismically upgraded using methods that would not alter its most important features, particularly the Market Street facade and interior spaces as discussed below. The Market Street facade would be preserved and restored to its 1908 appearance. The arcade and window displays along Market Street would be restored. The center third of the Emporium Building's interior would be preserved as a retail space with the existing column grid; the open column layout would be preserved in the central third of the building from Market Street through to Jessie Street. The eastern and western floor areas could be altered and subdivided into smaller retail units. The dome and rotunda would be preserved at their original location.

New construction above the fourth-floor level of the Emporium Building, both rooftop additions and new construction at Jessie Street and the Annex site to the west, would be designed to be compatible with, but differentiated from, the historic building. At roof level, the fifth-floor elements above the east and west wings and other miscellaneous rooftop structures and equipment added after 1908 would be removed. With the exception of the seven-story Market Street tower, all construction above the fourth-floor level would be demolished or rehabilitated. The south facade of the Market Street frontage (fourth through seventh floors) would be modified to satisfy new uses of the spaces. A new fifth floor, and possibly a sixth, would be added above the existing fourth floor along the east, west, and south sides of the building.

The existing structures on Lots 10, 12, 13, 14, 15, 17, 18, and 33 would be demolished. A new addition would be constructed between the south wall of the Emporium Building and Mission Street, including existing Lots 12, 13, 14, 15, 17, and part of Lot 18. Portions of Lots 10, 18, and 33 would be used in the reconfiguration of Jessie Street. The 1916 Emporium Annex on Lot 38 would be demolished and the site incorporated into the new construction. Jessie Street would be realigned to connect with Mission Street east and west of the site, as with the proposed project. The central portion of Jessie Street would become

part of the new addition, as with the project. The existing pedestrian bridges over Jessie Street would be removed. Elements of the Jessie Street facade of the Emporium Building would be retained as a grid of columns, wall segments or other design features to express visually the limit of the original building and to provide a clear transition from areas of old to new construction.

The base structure would be approximately 140 feet and seven stories high (the height of the Market Street facade of the Emporium Building). A 12-story hotel tower, with 10 levels of rooms above two floors of lobbies and other facilities would rise along Mission Street; the hotel tower would be set back from Mission and Jessie Streets.

With Preservation Alternative 2, the floor area of the Emporium Building would provide from 475,000 to 480,000 gross square feet of retail space, with 35,000 to 70,000 gross square feet for retail, hotel, or entertainment use on the new fifth and sixth floors; new construction, including the Annex site, Jessie Street, and the site south of Jessie Street, would provide from 550,000 to 600,000 gross square feet of retail, entertainment, or hotel space; the hotel tower, with about 300 rooms, would be about 250,000 to 300,000 gross square feet, for a total area of between 1,310,000 and 1,450,000 gross square feet, compared to about 1,575,000 gross square feet with the proposed project.

Of the alternatives, Preservation Alternative 2 would be most similar to the proposed project in terms of the land uses proposed. Retail, entertainment, and hotel uses would be included, and would be consistent with the range of uses in the vicinity.

This alternative would preserve some of the important architectural elements of the Emporium Building, including the central third of the interior, the rotunda, and the Market Street facade. The dome would be preserved in place and restored. However, unlike Preservation Alternative 1, this alternative would result in alteration of the east and west interiors, removal of column structures, opening of the upper-floor areas to create a multi-story gallery, and removal of the Jessie Street facade. While this alternative would reduce the impacts associated with demolition and alteration of the Emporium Building associated

with the project, it would not comply in its entirety with the *Secretary of Interior's Standards*, as would Preservation Alternative 1. Thus, Preservation Alternative 2 would still cause a significant adverse impact on the Emporium Building as an architectural resource. With new building size and floor area similar to that of the project, other environmental effects would be similar.

II. PROJECT DESCRIPTION

A. PROJECT SPONSORS' OBJECTIVES

The project sponsors are the San Francisco Redevelopment Agency (SFRA) for the expansion of the Redevelopment Project Area and Forest City Development California, Inc. (Forest City) for the re-use of the Emporium Site. Forest City proposes to create a mixed-use complex, while maintaining the historic integrity of the Emporium Building's Market Street facade, and preserving the dome and a portion of the rotunda.

The primary objective of the project sponsor is to reconstitute the Emporium Building site as a location of a major department store in the San Francisco retail market, and bring Bloomingdales to San Francisco, and to create a lasting, destination shopping mall within an urban setting, with a mix of complementary uses with additional retailers, entertainment/retail centers, cinema complex and a hotel. This objective includes the redevelopment of the site to meet present retail store standards while preserving the major identifying elements of the Emporium Building.

Additional objectives are to make Mission Street a prominent retail thoroughfare and to integrate the Market Street/Union Square shopping district with the Yerba Buena/Mission Street developments of the Moscone Convention Center, the anticipated Moscone Center Expansion Project, Yerba Buena Center for the Arts and the anticipated Mexican and Jewish Museums. This includes the following specific elements: 1) orienting the main entrance of the department store on Mission Street; 2) designing an unobstructed visual connection through the building between the Mission Street entrance and Market Street; and 3) ensuring safe comfortable pedestrian traffic by developing a pedestrian bridge between parking facilities in the Fifth and Mission Garage and the Emporium Site, at the Market Street shopping district.

The project sponsor considers the following additional objectives essential to the success of the project:

- Maximize the tax increment through the development of supporting entertainment, hotel and retail uses to create sufficient financing to support project development.
- Complete a seismic upgrade of the identifying elements of the Emporium Building at a cost that does not jeopardize the project's development.

The Redevelopment Agency's objectives for the expansion of the Yerba Buena Center Redevelopment Project Area are as follows:

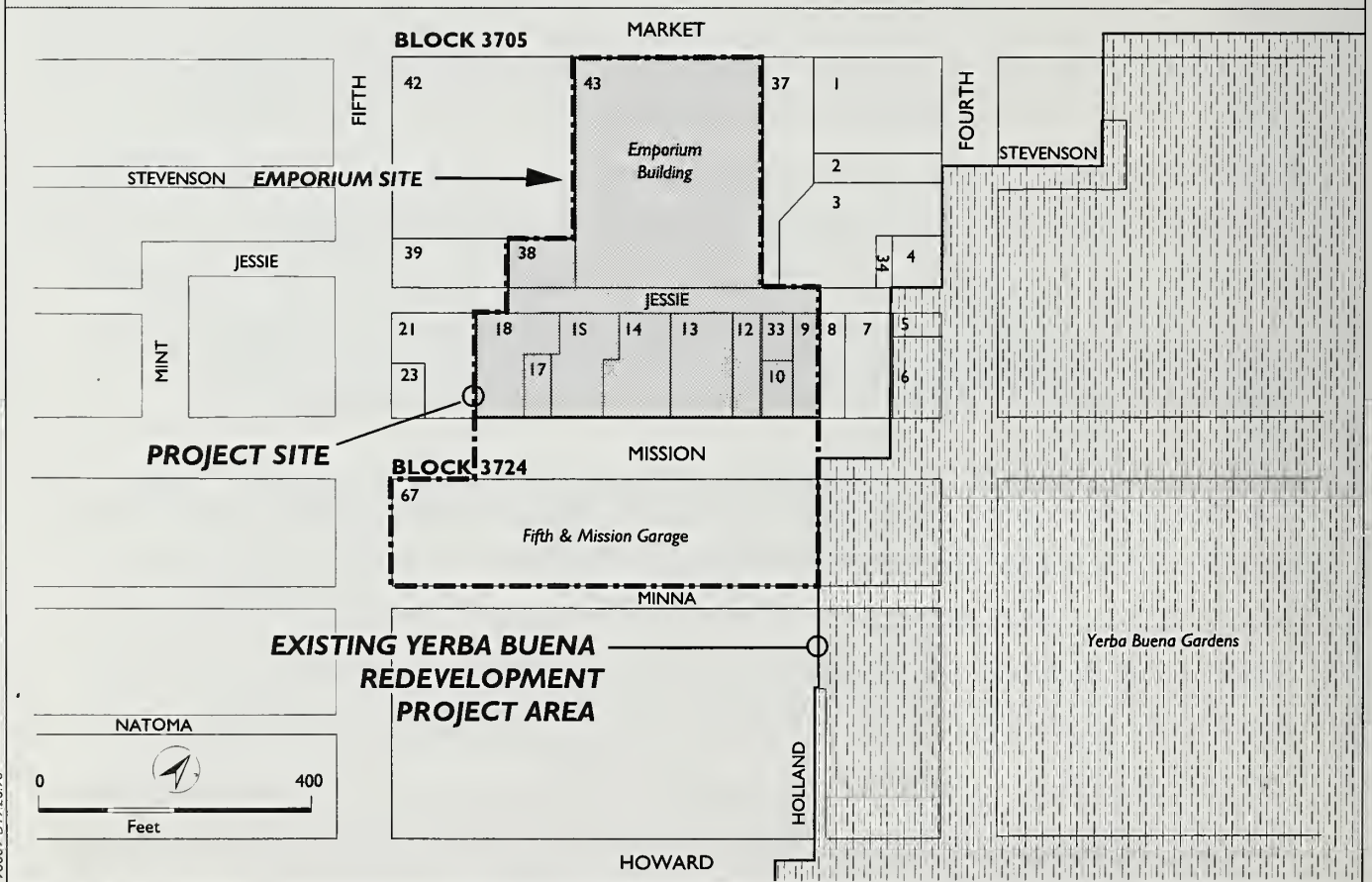
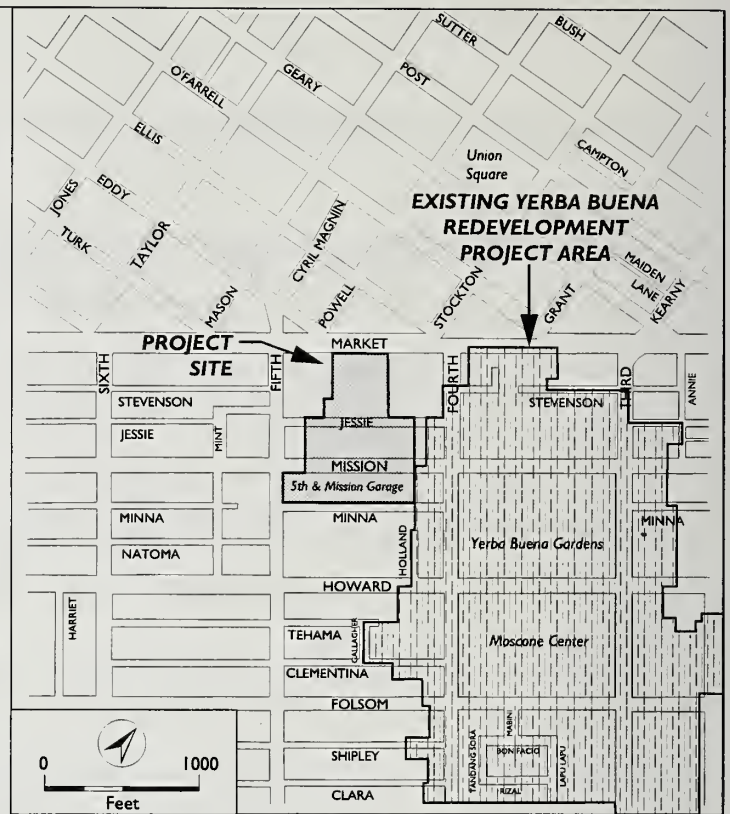
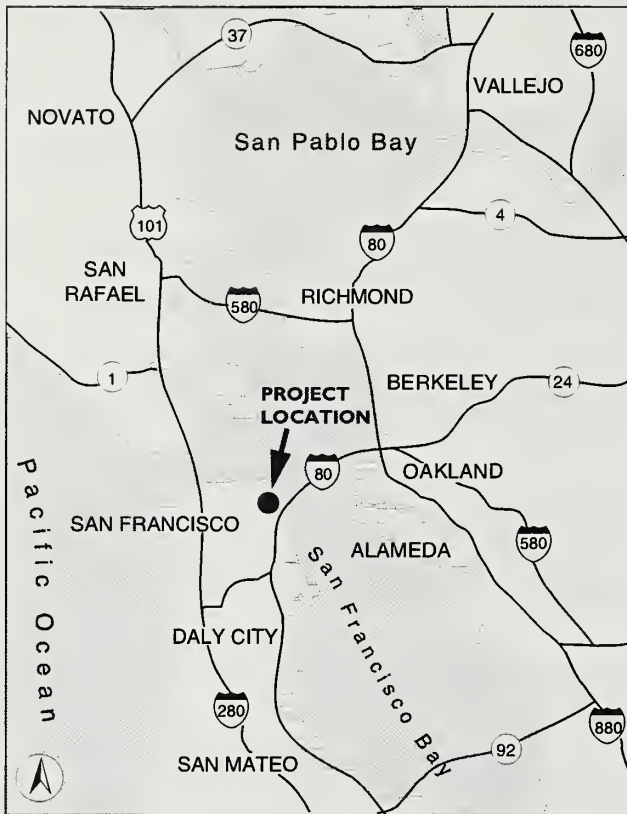
1. To provide the framework within which restoration of the economic and social health of the project and its environs will be accomplished by private actions.
2. To assist in the suitable re-establishment within and without the Project Area of businesses and institutions which will be displaced by the Project.
3. To provide adequate relocation housing opportunities for families, single individuals and the elderly, as well as to provide additional housing for these same groups that will assist in meeting the City's housing demand.
4. To guide development towards the production of a satisfying environment which preserves and enhances the unique aesthetic and cultural qualities of the City, and which is accessible, convenient and physically safe.
5. To stimulate and attract private investment, thereby improving the City's economic health, employment opportunities, tax base, and community economic development opportunities.
6. To provide temporary and permanent employment and contracting opportunities for minorities and women in the South of Market area, in a manner consistent with the Agency's lawful current or future affirmative action programs, and for residents of the South of Market generally.
7. To secure employment of South of Market area residents for permanent jobs by providing for utilization of hiring halls and other employment and training services to assist those residents.
8. To achieve the goal of at least 50% City resident employment. Residents of the South of Market area shall be given first consideration for hiring followed by other San Francisco residents.

B. PROJECT LOCATION

The Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development and this EIR use three terms to describe the project's boundaries and components: the Project Site, which encompasses the entire proposed expansion of the Redevelopment Area; the Emporium Site, which encompasses the Emporium Building and adjacent warehouse and office buildings between Market and Mission Streets; and the Fifth and Mission Garage, which includes about three-quarters of the garage and ground-floor retail space. The Emporium Site, the Fifth and Mission Garage Site, portions of Mission and Jessie Streets are considered the Project Site.

As shown in Figure 1, the Project Site includes parts of two blocks, the first bounded by Market, Fourth, Mission, and Fifth Streets, and the second by Mission Street, Fourth, Minna, and Fifth Streets. The Project Site consists of Assessor's Block 3705, Lots 9, 10, 12, 13, 14, 15, 17, 18, 33, 38, and 43, and part of Assessor's Block 3724, Lot 67. The Emporium Site consists of all of the above lots with the exception of Assessor's Block 3724, Lot 67. Lot 43 contains the Emporium Building. Lots 13, 14, and 15 were formerly warehouse and office buildings for the Emporium. Lots 9, 10, 12, 33, and 38 are mixed-use retail and office buildings. Lots 17 and 18 are currently parking facilities. The Fifth and Mission Garage Site, Block 3724, Lot 67 is the western two-thirds of the Fifth and Mission Garage; the eastern one-quarter of the garage (the remainder of Lot 67) is already within the Yerba Buena Redevelopment Project Area.

The Project Site is about 295,000 square feet, as follows: the Emporium Site, excluding the portion of Jessie Street proposed to be vacated, is approximately 180,000 square feet; the portion of Jessie Street proposed for vacation is approximately 15,000 square feet; and the Assessor's Block 3724, Lot 67 portion of the Fifth and Mission Garage within the Project Site is about 99,800 square feet. The Fifth and Mission Garage site in total occupies about 121,000 square feet, on the Mission-Fourth-Minna-Fifth block, with 2,654 parking spaces, and about 3,600-square-feet of retail space fronting Fourth Street, and about 24,000 square-feet of retail space is being developed fronting Mission Street.



98009-B / 9/28/98

SOURCE: EIP Associates

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 1 PROJECT LOCATION**

The Emporium Site is within a C-3-R (Downtown Retail) district, and is within three Height and Bulk Districts, 120-X, 160-S, 160-F; the Fifth and Mission Garage Site is within a (P) Public District and three Height and Bulk Districts, 90-X, 160-F, and 340-I.

C. PROJECT CHARACTERISTICS

The proposed project would expand the existing Yerba Buena Center Redevelopment Project Area, requiring amendments to the *Yerba Buena Center Redevelopment Plan*, the *Design for Development* document and conforming *San Francisco General Plan* text and map amendments. The proposed vacation of a portion of Jessie Street would require a Finding of Consistency with the (amended) General Plan. After these and other related legislative actions and approvals, Forest City Development would develop the Emporium Site.

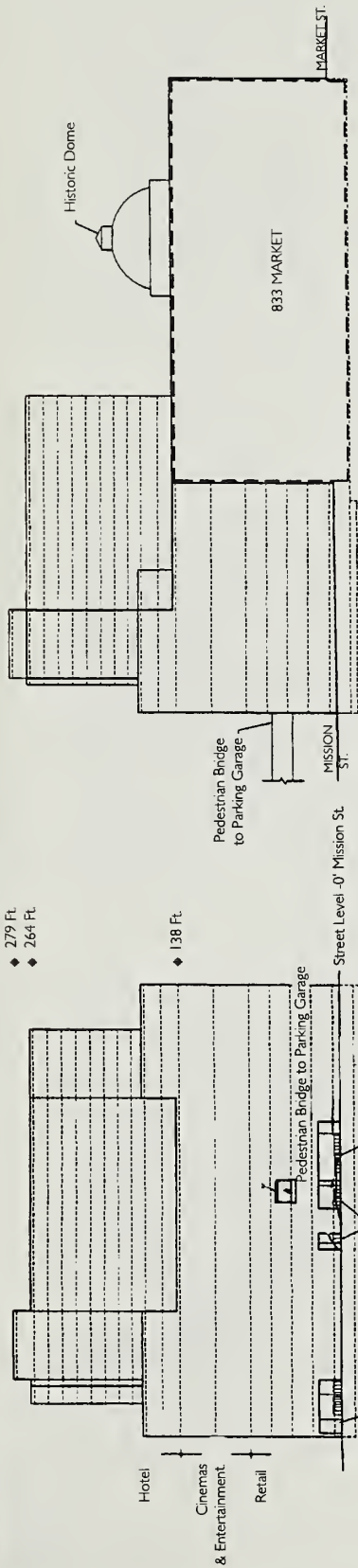
The Emporium Site development would include new retail, entertainment, restaurant, cinema, and hotel uses. The project would retain, rehabilitate and restore the Market Street facade of the former Emporium department store on Lot 43. The existing Emporium dome would be dismantled (as necessary), retained, restored and replaced at a location above the roof of the new building, about 136 feet above Market Street atop an atrium space. The project would demolish and replace 10 other existing buildings on the Emporium Site between Market Street and Mission Street, vacate a portion of Jessie Street currently used as a through connection between Fourth and Fifth Streets, and realign Jessie Street as a public street with mid-block connections of Fifth Street to Mission Street and Fourth Street to Mission Street. The project would include other changes to existing portions of the Jessie Street sidewalk and right-of-way widths. Those changes would be designed to allow adequate truck access to the project and other loading areas served by Jessie Street. The two proposed remaining segments of Jessie Street are referred to herein as Jessie Street East and Jessie Street West. Portions of Lots 10, 18 and 33 would be used in the realignment of Jessie Street. The remainder of these three lots; Lots 12, 13, 14, 15, 17, 38, and 43; and the vacated portion of Jessie Street would be the site of the new retail center. The American

Type Foundry building at 820 Mission Street, on Lot 9, adjacent to Jessie Street East, would be retained, and possibly renovated (see Figures 2 and 3). Total development on the Emporium Site would be about 1,575,000 gross square feet (see Table 1). Existing buildings on the site total about 630,000 square feet. The new building would include about 915,000 square feet of retail space, 360,000 to 400,000 square feet of which would be a Bloomingdale's Department Store occupying space from the basement level to Level 4. The basement level would reestablish direct connections to the Powell Street BART and MUNI Metro station under Market Street, formerly available through the Emporium. The Bloomingdale's frontage on Mission Street would serve as the main street entrance to that store and as an additional entrance to the project. Levels 5 through 6 would contain about 200,000 square feet of entertainment uses and a 110,000-square-foot multiplex cinema with up to 25 screens, accommodating about 6,000 seats. An L-shaped hotel tower, comprising about 350,000 square feet, is proposed to be constructed above Level 6.

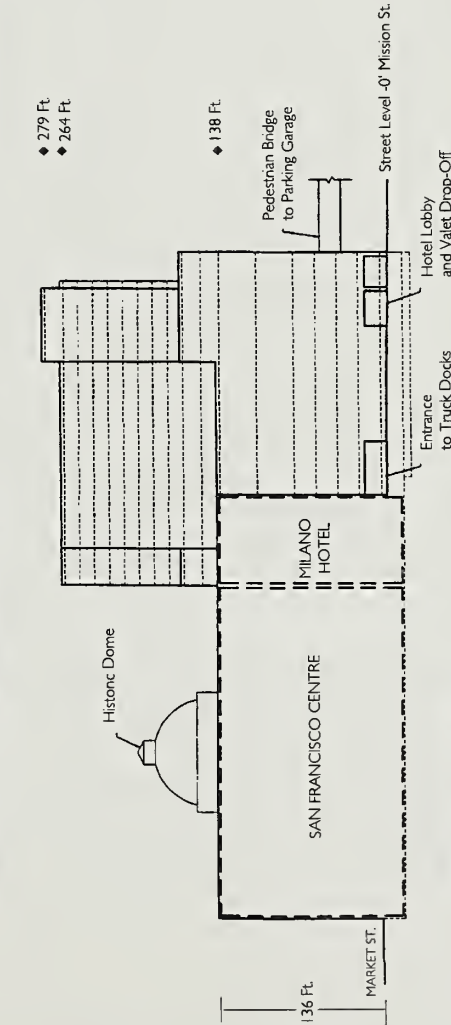
The proposed project would be approximately 138 feet tall at Market Street, about the height of the existing Emporium Building's Market Street parapet (the roof height of the new building would be about 133 feet). The total height of the project would be either 279 feet or 303 feet high depending on the hotel variant. Of the total project height at Mission Street (279 or 303 feet), the lower 138 feet would be retail/entertainment/cinema related and upper

TABLE 1
PROJECT DEVELOPMENT - EMPORIUM SITE

Use	Space (gsf)
Retail/Department Store	915,000
Entertainment/Restaurants	200,000
Cinema (6,000 seats)	110,000
Hotel (464 Room)	350,000
Total Gross Floor Area	1,575,000
gsf - gross square feet	
Source: Forest City Development	

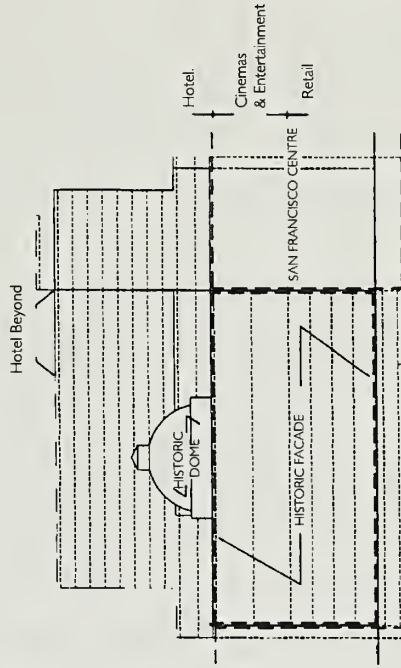


A. SOUTH ELEVATION (MISSION STREET)

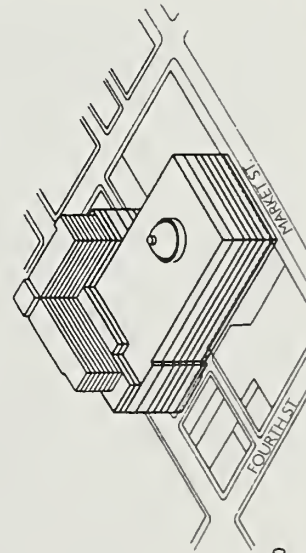
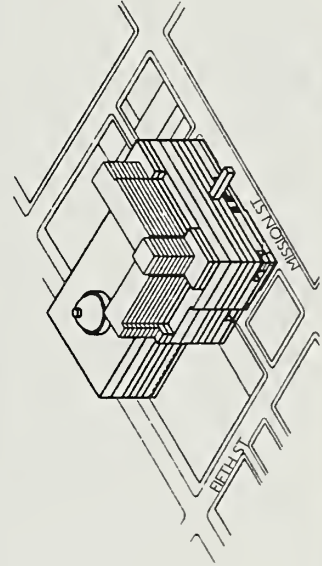
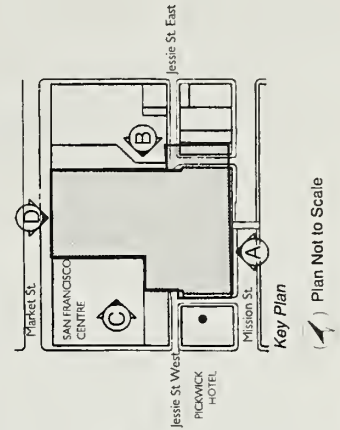


C. WEST ELEVATION

B. EAST ELEVATION



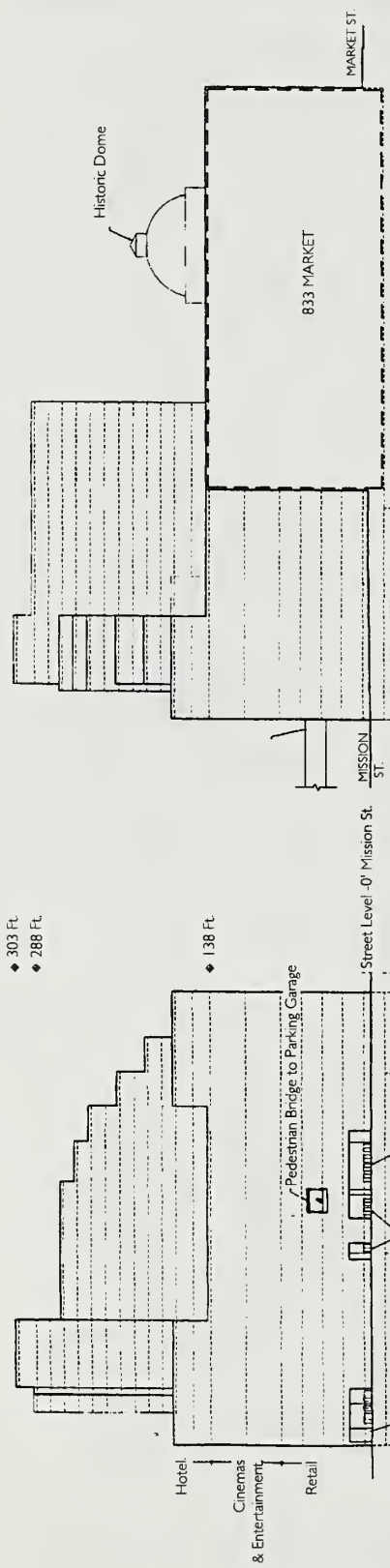
D. NORTH ELEVATION (MARKET STREET)



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 2 SCHEMATIC PLANS - HOTEL VARIANT I

SOURCE: KA, Inc. Architecture

EIP

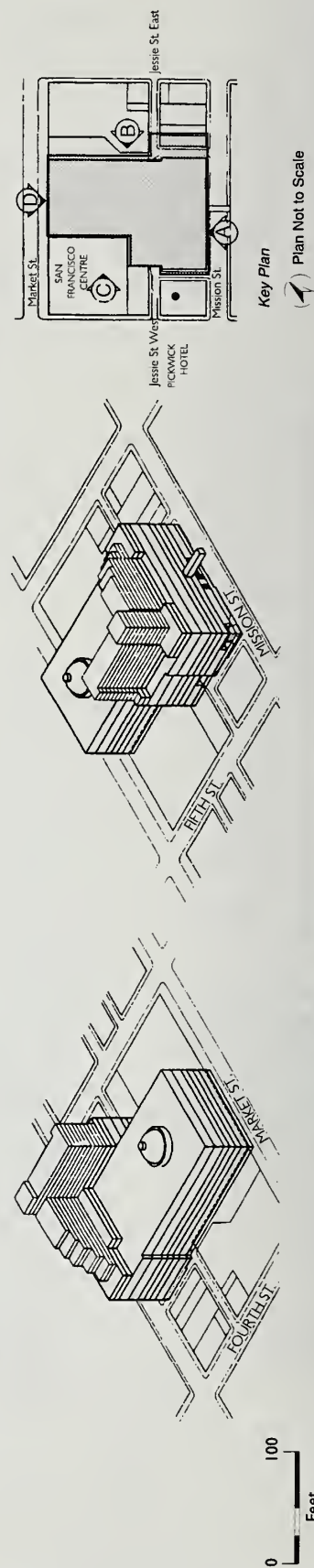


B. EAST ELEVATION

A. SOUTH ELEVATION (MISSION STREET)

C. WEST ELEVATION

D. NORTH ELEVATION (MARKET STREET)



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 3 SCHEMATIC PLANS - HOTEL VARIANT 2

SOURCE: KA, Inc. Architecture

EIP

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141 feet (Variant 1) or 165 feet (Variant 2) would be hotel related. The retail/entertainment/cinema portion of the proposed project would be six floors, four floors of retail with an average height of 18 feet and two floors of entertainment/cinema approximately 30 feet high each.

Hotel Variant 1 (see Figure 2, p. 35) has 10 floors total on top of the retail/entertainment/cinemas, a base of two floors, each about 15 feet high with lobby and facilities space, and eight floors of rooms, each about 12 feet high. The structure is topped by an additional "floor," about 15 feet high, of mechanical equipment (heating/air conditioning and elevator housings). Hotel Variant 2 (see Figure 3, p. 36) would have 12 floors total and, as with Variant 1, would have the lobby and facilities on two base floors. Variant 2 would have 10 floors of hotel rooms, with the eastern hotel wing "stepped back" as the height increases. As with Variant 1, each room floor is about 12 feet high topped with a 15-foot-high mechanical equipment floor. The hotel would be served by a vehicle drop-off area and entrance lobby on Mission Street near Jessie Street West. Hotel elevators would serve two floors of main lobby, restaurant, meeting, and service space and 8 to 10 floors of rooms. Figures 4 and 5 are sketches of the development project with the two proposed hotel variants.

The Emporium Site development also would include a pedestrian bridge serving the project from the existing Fifth and Mission Garage. The project may include improvements to that garage such as refinements to the Mission Street facade.

The project would include retail corridors that could connect to corresponding levels of the San Francisco Shopping Centre to the west of the existing Emporium Building. Such connections existed when the Emporium store was in operation. The project would also include a 14-bay enclosed truck loading and delivery area served from Jessie Street West near Fifth Street.



SOURCE: KA, Inc. Architecture



SOURCE: KA, Inc. Architecture

The schematic plans described above include land use program and overall building dimensions. These basic parameters are not expected to change; however, the project sponsor is developing a more refined design, and this final design may vary somewhat from the configuration of uses specified herein.

D. PROJECT SCHEDULE, COST, APPROVALS, AND GENERAL PLAN POLICIES

PROJECT SCHEDULE AND COST

The project sponsor expects environmental review, project review, and detailed design to be completed by early 1999. If the project were approved and building or site permits issued, project construction is anticipated to commence in mid-1999 and last about 30 months. Initial occupancy would occur in 2001. The estimated construction cost for the core and shell would be about \$108 million without the hotel and \$145 million with the hotel (1998 dollars).

APPROVAL REQUIREMENTS

Following a public hearing on the Draft EIR before the City Planning and San Francisco Redevelopment Agency Commissions, responses to written and oral comments will be prepared. The EIR will be revised as appropriate and presented to the City Planning Commission and the Redevelopment Agency Commission for certification as to its accuracy, objectivity, and completeness. No discretionary project approvals may be granted or permits may be issued before the Final EIR is certified.

The project would require amendment of the *Yerba Buena Center Redevelopment Plan* (YBC Plan) to enable the San Francisco Redevelopment Agency (SFRA) to use any redevelopment powers to remedy the blight that now characterizes the site and to facilitate development of the project if the SFRA and the Board of Supervisors deem such use necessary and desirable, and to establish land use standards to allow and control development of the project.

Amendment of the *Yerba Buena Center Redevelopment Project Area Design for Development* document would also be required to establish urban design objectives, standards, and guidelines to allow and control development of the project. The City Planning Commission would amend the Yerba Buena Center Project Area Preliminary Plan to include the Project Site for consideration by the City and County of San Francisco and the SFRA as to the appropriateness of the above-described actions. This is a preliminary step in the evaluation process and is not itself an approval of the amendments proposed as part of the project.

In addition, the project would require execution of an Owner Participation Agreement or Disposition and Development Agreement, or both, between the SFRA and Forest City Development California, Inc. (Forest City). This agreement would allow and govern the physical construction of the project, and establish and govern the relationships between the SFRA and the developers regarding acquisition, ownership, assembly of the Project Site, and the financing, construction, ownership, and operation of the project improvements.

Adoption of the proposed amendment to the YBC plan would require that some components of the *San Francisco General Plan* be amended so that all plans would be consistent. The General Plan contains a number of elements with Objectives, Policies and Principles that are relevant to the proposed project and would not require any changes. The Downtown Area Plan of the General Plan includes maps that would require amendment to reflect the expansion of YBC Redevelopment Project Area and the Emporium Site development. Revisions may also need to be made to the City's zoning maps to document the expansion of the YBC Redevelopment Project Area.

The following specific actions and approvals are proposed to implement the project:

Redevelopment Agency Commission:

- Jointly certifies the Final EIR with the City Planning Commission.
- Adopts CEQA findings and mitigation monitoring program.
- Approves amendment to the *Yerba Buena Center Redevelopment Plan* and adopts amendment(s) to the *Design for Development*.
- Approves variances from the *Design for Development* standards, if necessary, such as truck loading requirements.

- Approves Owner Participation Agreements and/or Disposition and Development Agreement.
- Approves Report to the Board on the Redevelopment Plan Amendment.
- Approves Basic Concept Design and Schematic Design.
- May approve recommendation to the Board for amendment to the Redevelopment Agency Budget and issuance of tax allocation bonds.
- May approve resolution of necessity and take other actions to acquire parcels.

Planning Commission:

- Jointly certifies the Final EIR with the Redevelopment Agency Commission.
- Adopts CEQA findings and a mitigation monitoring program.
- Adopts, and recommends to the Board of Supervisors, the General Plan amendments, including amendment of the Downtown Plan of the General Plan to change the Height and Bulk Districts from 120-X, 160-S, and 160-F to 135-X, 200-X, and 340-X.
- Approves, and recommends to the Board of Supervisors, amendment of the City Planning Code and Zoning Map as necessary.
- Determines consistency of: the amendment(s) to the *Redevelopment Plan*; street vacation; conveyance of City property; easement or major encroachment on Mission Street; and other approvals with the General Plan and Planning Code Section 101.1 Priority Policies, and recommends their adoption to the Board of Supervisors.
- Adopts amendments to the *Yerba Buena Center Design for Development* document.
- Determined and adopts Findings of Consistency of the project plans with the General Plan.

Board of Supervisors:

- Adopts CEQA findings and mitigation monitoring program.
- Adopts amendments to the *Yerba Buena Center Redevelopment Plan*.
- Adopts General Plan amendments, including amendment of the Downtown Plan of the General Plan to change the proposed Height and Bulk Districts from 120-X, 160-S and 160-F to 135-X, 200-X, and 340-X.
- Adopts amendments of the City Planning Code and Zoning Map, as necessary.
- Makes General Plan consistency and Planning Code Section 101.1 Priority Policies findings.
- Approves street vacation for a portion of Jessie Street, agreement for the conveyance of vacated portion of Jessie Street, and acceptance of dedication of the realigned portions of Jessie Street.
- Approves vacation, easement, and/or encroachment or other agreements for the Mission Street pedestrian bridge.
- Approves merger and resubdivision of Emporium Site properties.

- May approve amendment to the budget of the Redevelopment Agency for tax allocation bonds.

Department of Public Works:

- Reviews and recommends acceptance of rededication and street improvements on Jessie Street.
- Approves design of all public infrastructure improvements, including dimensions and grades of all public streets and issues permits for such work including relocation of public utilities.
- Reviews and makes a recommendation on street vacation for a portion of Jessie Street and vacation/easement/major encroachment on Mission Street for the pedestrian bridge connection.

Department of Building Inspection:

- Issues demolition, site, and building permits.

Parking Authority / Department of Parking and Traffic:

- Approve agreements and implementation on connection and access to Fifth and Mission Garage

General Plan Policies

As noted above, the project would be reviewed by the Planning Department and the City Planning Commission in the context of applicable objectives and policies of the *San Francisco General Plan*. Some key objectives and policies are noted here; others may be addressed when necessary approvals are sought.

Commerce and Industry Element

Objective 1 states “manage economic growth and change to ensure enhancement of the total city.”

Objective 2 encourages development to “maintain and enhance a sound and diverse economic base and fiscal structure for the City.”

Urban Design Element

Objective 1: "Emphasis of the characteristic pattern which gives to the City and its neighborhoods an image, a sense of purpose and a means of orientation."

Objective 2: "Conservation of resources which provide a sense of nature, continuity with the past, and freedom from overcrowding."

Objective 3: "Moderation of major new development to complement the City pattern, the resources to be conserved, and the neighborhood environment."

Transportation Element

Objective 1, Policy 1.2: "Ensure the safety and comfort of pedestrians throughout the city."

Objective 20: "Give first priority to improving transit service throughout the city, providing a convenient and efficient system as a preferable alternative to automobile use."

Objective 20, Policy 1: "Give priority to transit vehicles based on a rational classification system of transit preferential streets."

Objective 20, Policy 2: "Reduce, relocate or prohibit automobile facility features on transit preferential streets, such as driveways and loading docks, to avoid traffic conflicts and automobile congestion."

Objective 26, Policy 26.1: "Retain streets and alleys not required for traffic, or portions thereof, for through pedestrian circulation and open space use."

Objective 26, Policy 26.2: "Partially or wholly close certain streets not required as traffic carriers for pedestrian use or open space."

Objective 27: "Ensure that bicycles can be used safely and conveniently as a primary means of transportation, as well as for recreational purposes."

Objective 27, Policy 27.7: "Include bicycle facility funding in all appropriate requests."

Objective 28, Policy 28.1: "Provide secure bicycle parking in new governmental, commercial, and residential developments."

Downtown Plan

- Objective 3: “Improve downtown San Francisco’s position as the region’s prime location for specialized retail trade.”
- Objective 3, Policy 1: “Maintain high quality, specialty retail shopping facilities in the retail core.”
- Objective 4: “Enhance San Francisco’s role as a tourist and visitor center.”
- Objective 4, Policy 1: “Guide the location of new hotels to minimize their adverse impacts on circulation, existing uses, and scale of development.”
- Objective 12: “Conserve resources that provide continuity with San Francisco’s past.”
- Objective 12, Policy 1: “Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.”
- Objective 12 Policy 2: “Use care in remodeling significant older buildings to enhance rather than weaken their original character.”
- Objective 12 Policy 3: “Design new buildings to respect the character of older development nearby.”

Downtown Plan (Urban Design Objectives)

- Objective 1: “Create an urban form for the downtown that enhances San Francisco’s stature as one of the world’s most visually attractive cities.”
- Objective 2: “Create and maintain a comfortable pedestrian environment.”
- Objective 3: “Create a building form that is visually interesting and harmonizes with surrounding buildings.”
- Objective 4: “Create and maintain attractive, interesting urban streetscapes.”

City Planning Code Section 101.1

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which established eight Priority Planning Policies. The policies, contained in Section 101.1 of the City Planning Code, are: 1) preservation and enhancement of neighborhood-serving retail uses; 2) protection of neighborhood character; 3) preservation and enhancement of affordable housing; 4) discouragement of commuter automobiles; 5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; 6) earthquake preparedness; 7) landmark and historic building preservation; and 8) protection of open space. Before issuing a permit for any project or adopting any legislation that requires an Initial Study under the California Environmental Quality Act, or adopting any zoning ordinance or development agreement, and before taking any action which requires a finding of consistency with the General Plan, the City is required to find that the proposed project or legislation is consistent with the Priority Policies.

III. ENVIRONMENTAL SETTING AND IMPACTS

An application for environmental evaluation for the project was filed June 4, 1998. On the basis of an Initial Study published on July 18, 1998, the San Francisco Planning Department and the Redevelopment Agency determined that an EIR was required. The Initial Study determined that the following effects of the project would either be insignificant or would be reduced to a less than significant level by mitigation measures included in the project and thus required no further analysis: population; employment and housing; utilities and public services; biology; geology and topography; water; energy and natural resources; hazards; and cultural resources. Therefore, the EIR does not discuss these issues (see Appendix A, p. A.1, for the Initial Study). The Initial Study also found that the land use changes would not cause potential significant environmental effects and required no further analysis but noted that this topic would be included in the EIR for informational purposes, and to orient the reader.

A. LAND USE, PLANS AND ZONING

SETTING

LAND USE

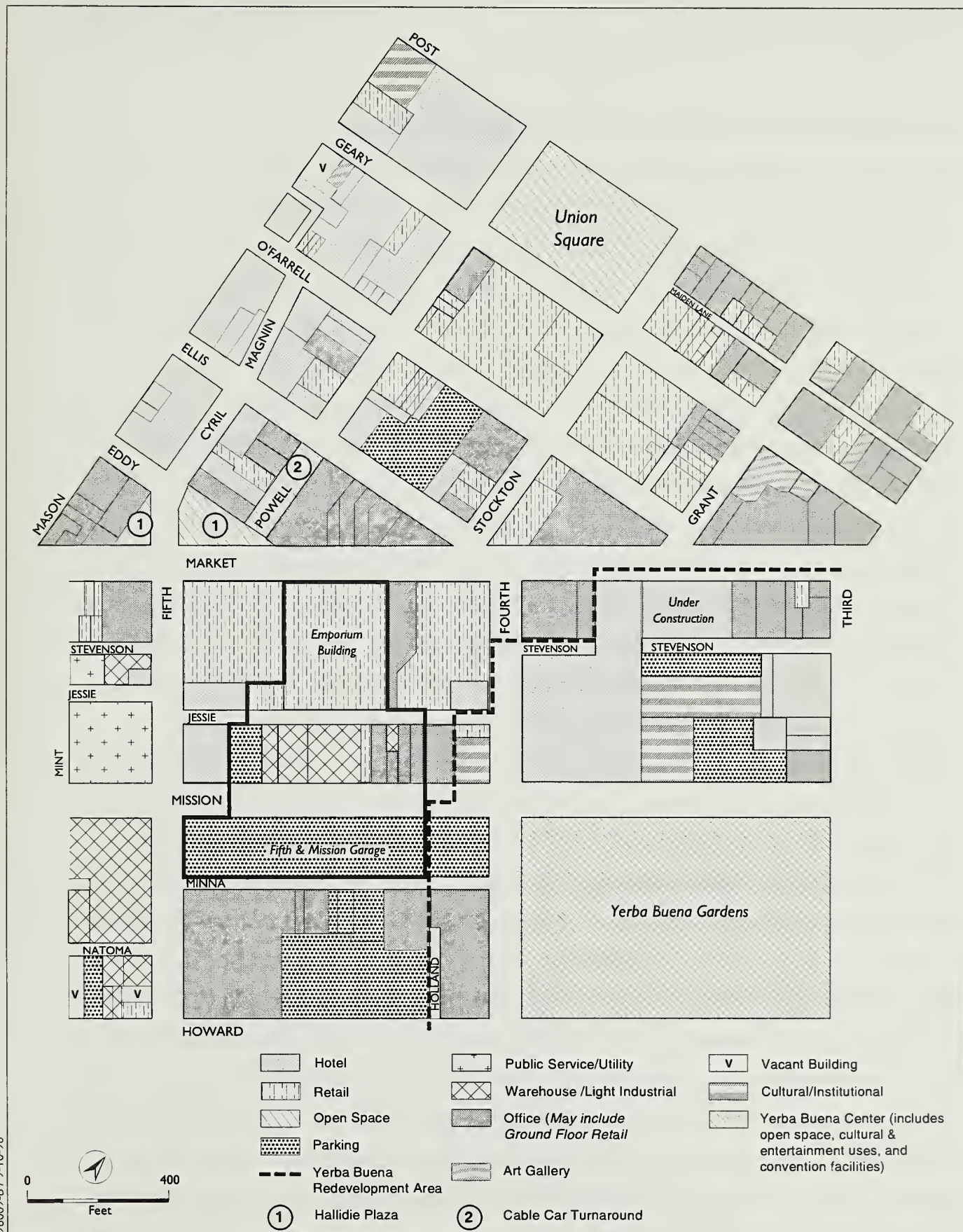
The Project Site is located on the blocks bounded by Market Street on the north, Fourth Street on the east, Minna Street on the south, and Fifth Street on the west. The Project Site is comprised of Lots 9, 10, 12, 13, 14, 15, 17, 18, 33, 38, and 43 of Assessor's Block 3705 and Lot 67 of Assessor's Block 3724. Lot 43 is the site of the seven-story Emporium Building, now partially occupied by a Macy's retail furniture store. Lots 13, 14, and 15 are the site of Emporium structures formally used as warehouse and office space. Some of this space is currently used by Macy's for shipping, receiving, and storage. Lots 9, 10, 12, and 33 are occupied by three buildings ranging from two to five stories in height which house

mixed retail, office, and light industry uses. A 77-space public parking lot occupies Lots 17 and 18. Lot 38 is occupied by the 10-story Emporium Annex.

The Emporium and its basement-level BART entrance were closed to the public in February 1996, though employees remained in the building until March 1996. The building remained empty until the first floor was occupied by Macy's Home Furnishing Department in January 1997. The building is currently not fully occupied. Uses include the Macy's Home Furnishing Department on the first floor and a beauty salon on the mezzanine level. Portions of remaining floors (the basement through fourth floor) are used for stock and storage. Macy's and Federated offices are on the fifth floor; the remainder of the building is unoccupied. Macy's is also using all floors through the fifth floor of the Annex building for offices. Portions of the remaining Federated-owned buildings are used for stock and loading and receiving.

Other buildings on the Emporium Site block include: to the west, the San Francisco Shopping Centre (a seven-story retail mall connected to the former Emporium Building at several levels), the Milano Hotel, the Victorian Hotel, and the Howard Johnson's Pickwick Hotel; to the east, the James Bong building at 825 Market Street (adjacent to the Emporium Site), and the San Francisco Community College Downtown Center at Fourth and Mission Streets; and Cole/Fox Hardware, at the southwest corner of Jessie and Fourth Streets. On Fourth Street, the Pacific Building is currently being renovated as a multi-story retail building to be known as the Pacific Center. Along Mission Street are various small retail and service-oriented businesses and some light industrial uses. See Figure 6 for general land uses in the project vicinity.

The Project Site also includes Lot 67 of Assessor's Block 3724, which is owned by the San Francisco Department of Real Estate and is occupied by part of the seven-level, 2,654-space Fifth and Mission Garage. The garage, encompassing all of Lot 67, is bounded by Mission, Fourth, Minna, and Fifth Streets.



SOURCE: EIP Associates

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 6 EXISTING LAND USE IN THE PROJECT VICINITY

The Project Site is an area of San Francisco's downtown that is characterized by a concentration of retail activity focused on Market Street and Union Square, adjacent to South of Market (SOMA). The areas of SOMA in the vicinity of the Project Site have historically supported printing, wholesaling, light industry, and some residential uses, but over time have transitioned to include office, hotel, retail, and visitor-oriented uses. Building heights on the Project Site and in nearby areas range from two- to three-story commercial structures to seven- to nine-story retail and office buildings to the 39-story Marriott Hotel.

North of the Project Site, extending to Union Square along Powell and Stockton Streets and Grant Avenue, is a concentration of hotels, retail and visitor uses. Hotels include the Crowne Plaza, Parc 55 Hotel, Villa Florence, and Stratford. Retail uses, such as a Virgin Megastore, the Gap, and Planet Hollywood, are nearby in the project vicinity. The S.F. Visitor Information Center and Hallidie Plaza, and the Powell Street Cable Car Turnaround, are tourist and visitor-oriented areas. Across Fifth Street at Mission to the west of the Project Site is the Old U.S. Mint Museum, now closed. Development further west is characterized primarily by mixed office, commercial and retail uses. The Chronicle Newspaper Agency's downtown office and distribution center is southwest of the Project Site, at Mission and Fifth Streets. South of the Fifth and Mission Garage, between Minna and Howard Streets, is an 11-story Wells Fargo office building, a surface parking lot, and 150 Fourth Street, a mixed-use building with retail, restaurants, office uses and UC Berkeley Extension program space. This Howard-Fourth-Minna-Fifth Streets site will be the location of the approved Moscone Center Expansion project. To the south and east across Fourth Street is Yerba Buena Center. The YBC Redevelopment Project Area includes the Moscone Convention Center, the Yerba Buena Center for the Arts, and Yerba Buena Gardens open space. Under construction at YBC is a Children's Center on the Fourth-Howard-Fifth Streets block. Also under construction is the building that will house the 115-foot-tall Sony Metreon multi-screen cinema and other retail and entertainment uses, on Fourth between Mission and Howard Streets. To the east, at Fourth and Mission Streets, is the 39-story Marriott Hotel.

Overall, the project vicinity is a retail, entertainment, hotel, convention, and cultural activities center serving residents and visitors.

PLANS

The Downtown Plan

The Project Site is located within the boundaries of the Downtown Plan, an Area Plan of the *San Francisco General Plan*. The Downtown Plan is the policy document that guides growth and development in San Francisco's downtown. Centered on Market Street, the plan covers an area roughly bounded by Van Ness Avenue to the west, The Embarcadero to the east, Folsom Street to the south, and the Financial District to the north. The plan contains a number of objectives and policies which address the following issues: provision of space for commerce, retail, housing, and open space; preservation of the past; urban form; movement to, from, and within the downtown area; and seismic safety.

The Downtown Plan was intended to manage growth in this area, including maintaining a compact downtown core and directing growth to areas with developable space and easy transit accessibility so downtown would "encompass a compact mix of activities, historical values and distinctive architecture and urban forms that engender a special excitement reflective of a world city" (Downtown Plan, p. II.1.1).

The Downtown Plan, in conjunction with the City Planning Code, establishes specific zoning and height and bulk controls. Policy 1, which states "relate the height of buildings to important attributes of the city pattern and to the height and character of existing and proposed development "provides for specific building bulk controls." Bulk Districts are called for in Objective 13, Policy 2, which states "Foster sculpturing of building forms to create less overpowering buildings and more interesting building tops. . ."; they are presented in Map 5, p. II.1.29 of the Downtown Plan. Most of the Project Site is within a C-3-R (Downtown Retail) district and is in 120-X, 160-S and 160-F Height and Bulk

Districts (see Figure 7, p. 54, and Zoning, p. 53). Lot 67, Assessor's Block 3724 is zoned P (Public), reflecting public ownership of the Fifth and Mission Garage.

Commerce and Industry Element

The Commerce and Industry Element, adopted in 1978, "sets forth objectives and policies that address the broad range of economic activities, facilities, and support systems that constitute San Francisco's employment and service base" (p. I.2.1). The element's three primary goals are continued economic vitality, social equity, and environmental quality. Specific objectives concern major economic sectors and include manufacturing and industry, maritime activities, office and administrative services, neighborhood commercial retailing, and visitor trade. The element sets forth policies intended to diversify San Francisco's economic base. The element includes a number of policies focused on the development of commercial activities, and it references the Downtown Plan for specific policies regarding retail development.

Yerba Buena Center Redevelopment Plan

The *Yerba Buena Center Redevelopment Plan* is the physical development plan for the area bounded approximately by Market Street, Third Street, Second Street, Hawthorne Lane, Harrison Street, and Fourth Street. The Fifth and Mission Garage portion of the Project Site adjoins YBC boundaries (see Figure 6, p. 49). The *Redevelopment Plan* and associated *Design for Development* documents include the specific land use controls and design standards that guide development in the plan area. The *Redevelopment Plan* was created to aid in the revitalization of a substantial part of the South of Market through both public and private development efforts. The focus of the plan is the land use and development controls associated with creation of the Moscone Convention Center. The plan also calls for provision of affordable housing, substantial open space (at Yerba Buena Gardens), arts and other cultural institutions and spaces, including the Yerba Buena Center for the Arts and the

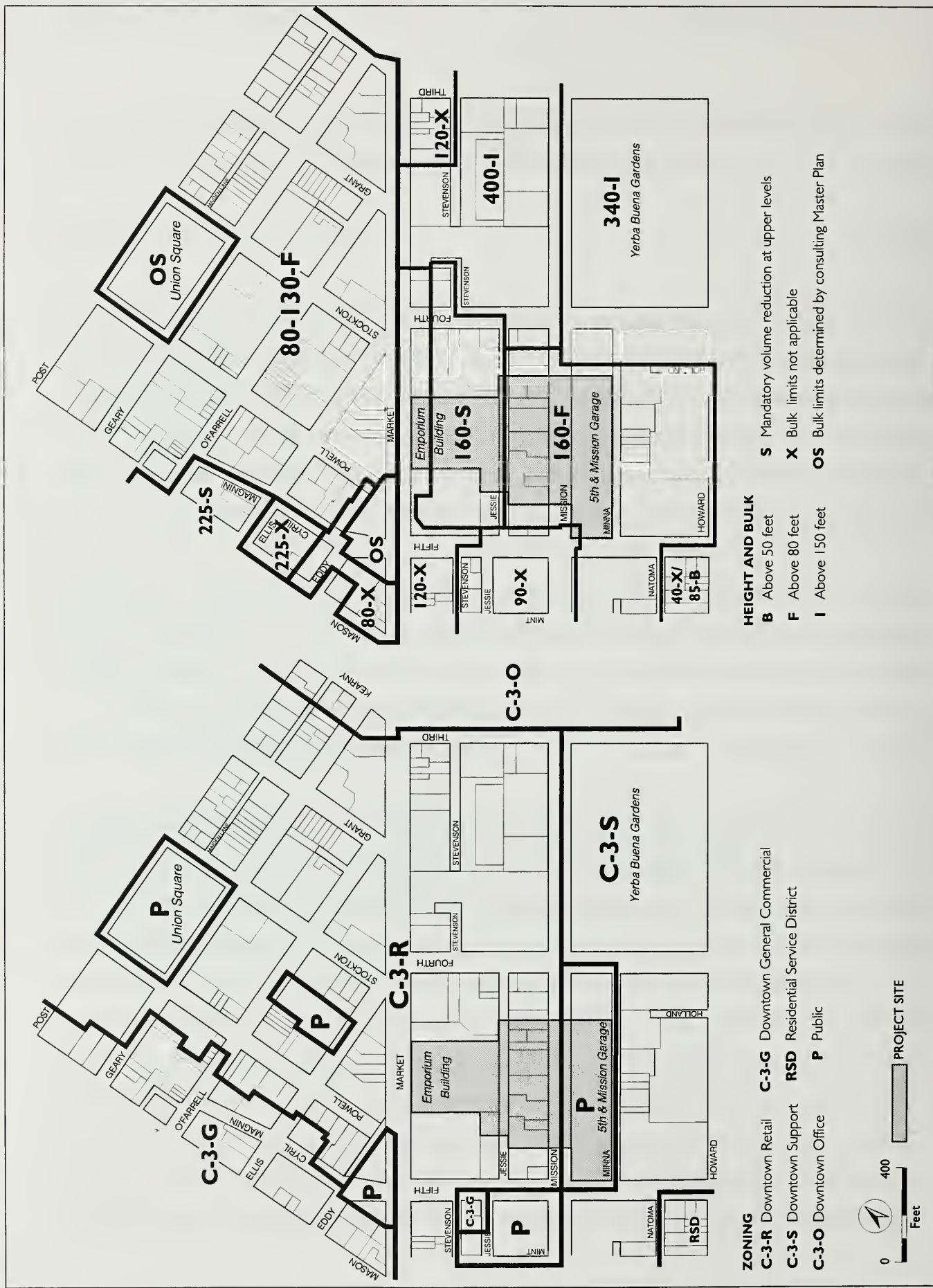
under-construction Children's Center, entertainment uses (the under-construction Sony Metreon), retail, hotel and office residential buildings, and parking facilities.

Zoning

The *YBC Redevelopment Plan* would be amended to include the Project Site in the YBC Redevelopment Project Area. The Project Site would then be subject to the policies and development controls set forth in the *YBC Redevelopment Plan* and *Design for Development* document. As a part of a Redevelopment Agency plan, the project would be subject to the City Planning Code only as expressly provided in the plan. The following information on City Planning Code controls is therefore provided for informational purposes only.

Most of the Project Site is in a C-3-R (Downtown Retail) District (see Figure 7). Lot 43 is split between two height and bulk districts; approximately 100 feet of the property measured from Market Street is in a 120-X Height and Bulk District, the remainder, to Jessie Street, is in a 160-S Height and Bulk District. Lot 38 is entirely within a 160-S Height and Bulk District. The remaining lots are in a 160-F Height and Bulk District (see Figure 7).

Lot 67 of Assessor's Block 3724, which contains the Fifth and Mission Garage, is designated as P (Public) and is split between 90-X and 160-F Height and Bulk Districts; most of the lot is within the latter district. Section 210.3 of the City Planning Code describes C-3-R districts in the following way: "This district is a regional center for comparison shopper retailing and direct consumer services. It covers a compact area with a distinctive urban character, consists of uses with cumulative customer attraction and compatibility. . . A further merging of this district with adjacent, related districts is anticipated, partially through development of buildings which combine retailing with other functions." The 90-X and 120-X Height and Bulk District limit buildings to 90 and 120 feet, respectively. The 160-F and 160-S Height and Bulk Districts limit buildings to 160 feet. In Section 260(a)(3), the 'X' designation exempts buildings over 65 feet in height from bulk requirements. In Table 270,



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT

FIGURE 7 EXISTING PLANNING CODE USE DISTRICTS AND HEIGHT AND BULK DISTRICTS

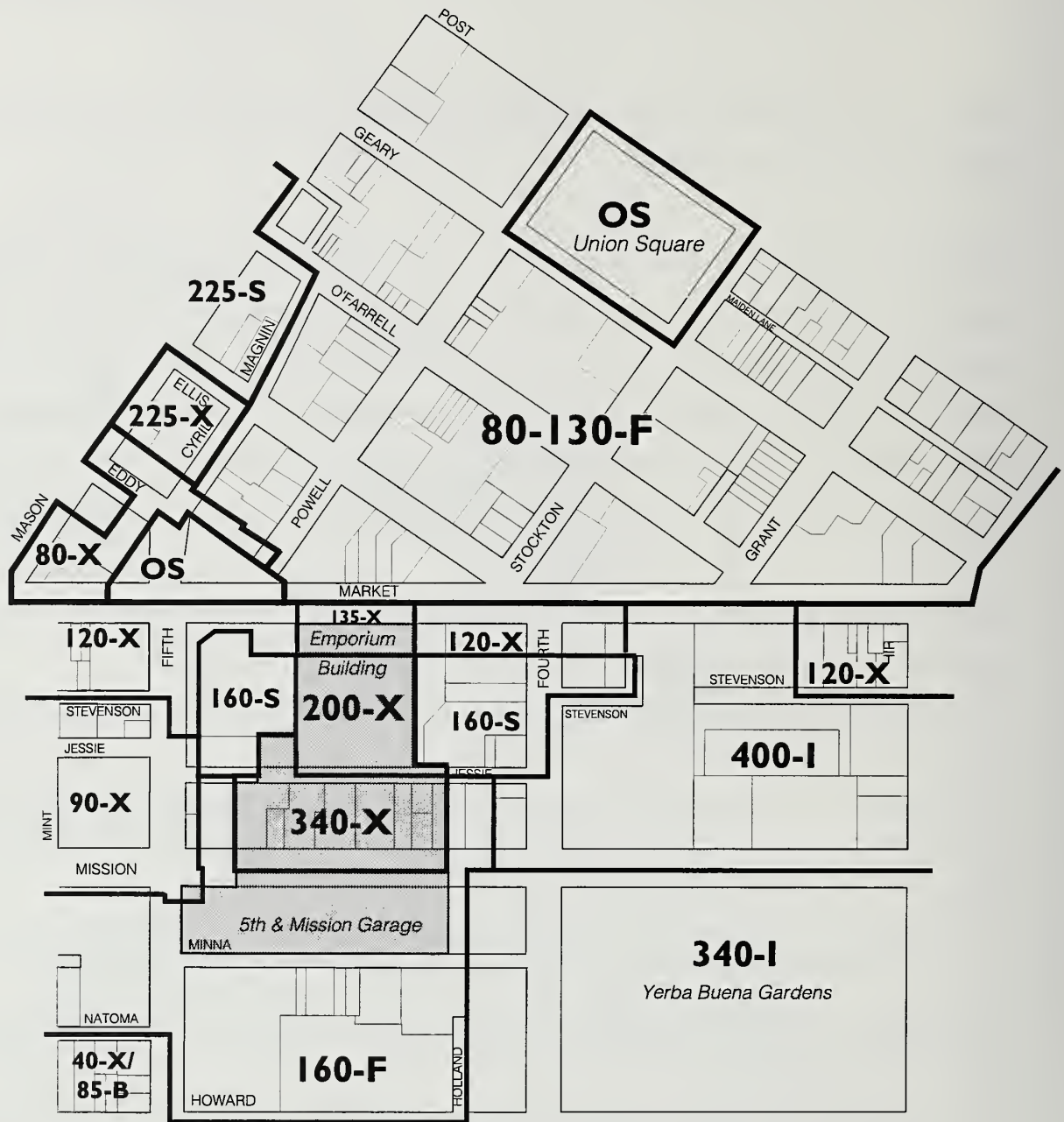
the 'F' Bulk designation restricts building plan dimensions above 80 feet to 110 feet in length and 140 feet along the diagonal.

In Section 270(d), the 'S' Bulk designations provide dimensional requirements for buildings intended to reduce floor area and increase setbacks in upper stories. The proposed project would include amendments of height and bulk designations that currently apply to the Project Site. The part of the site along Market Street now designated 120-X would be changed to 135-X. Part of the area now designated 160-S would be changed to 200-X, and part would be changed to 340-X and the area designated 160-F would become 340-X (see Figure 8).

The *YBC Redevelopment Plan* incorporates the following provisions of the City Planning Code that are relevant to aspects of the proposed project:

- Section 138, Open Space Requirements in C-3 Districts, requiring usable open space in a ratio of 1:100 gross square feet for C-3-R uses.
- Section 147, Reduction of Shadows in Certain Public or Publicly Accessible Open Spaces in C-3 Districts, to reduce shadows on open space, within the dictates of good design and without unduly restricting development potential.
- Section 148, Reduction of Ground-Level Wind Currents in C-3 Districts, to meet the 11 mph pedestrian comfort criterion and 7 mph public seating area criterion.
- Section 270, Bulk Controls, essentially requiring smaller floor sizes with increasing height of buildings.
- Article 11, Preservation of Buildings and Districts of Architectural, Historical and Aesthetic Importance in the C-3 Districts, regarding designation of significant architectural resources and protecting them from demolition or alteration.

Sections III.B, Architectural Resources, and III.D, Shadow and Wind, discuss relevant City Planning Code provisions further.



SOURCE: EIP Associates

COMPARISON WITH EXISTING PLANS

In the Initial Study, published July 18, 1998 (Appendix A), the Planning Department and the Redevelopment Agency determined that the project would not have a substantial adverse effect on land use. The following discussion of impacts is included for informational purpose, and to orient the reader.

The project would change land use at the Project Site from moderately dense retail and commercial uses, and surface parking, to more intense retail, entertainment, and hotel uses. As discussed in the Setting subsection, p. 47, the project area is strongly characterized by retail uses and other uses, including hotel and cultural uses, serving both residents and visitors. The proposed project would enlarge the Emporium Building Site and expand the use of the site by constructing hotel, retail, and entertainment uses. The proposed development would increase existing uses from about 630,000 square feet to about 1,575,000 square feet. The proposed development would thus intensify land use at the Project Site. Given the nature of the project, however, this increase in density represents an expansion of uses which would be compatible with the uses in the vicinity of the project.

PLANS

The project proposes to amend the *Redevelopment Plan* and the *Design for Development* document to include the Project Site in the YBC Redevelopment Project Area. If these amendments are adopted by the Redevelopment Commission and the Board of Supervisors, the proposed development project would be subject to the *Redevelopment Plan* and *Design for Development* document. While projects undertaken as part of a redevelopment plan are not subject to the land use controls, height and bulk requirements, and other regulations contained in the City Planning Code (except as explicitly provided for in the redevelopment plans), redevelopment plans and amendments thereto must be found to be consistent with *General Plan* policies. The *General Plan* would have to be amended by the Planning Commission and Board of Supervisors to allow the proposed project.

The Downtown Plan

The project would include amendments to the Downtown Plan Element of the General Plan to include the Project Site in the 135-X, 200-X, and 340-X Height and Bulk Districts. Regarding C-3-R districts, the Downtown Plan calls for a lowered base floor area ratio (FAR), encourages ground floor retail, and permits hotels as a conditional use. The Planning Commission would evaluate the proposed project against the goals of the Downtown Plan.

Because Jessie Street is identified in the Downtown Plan as a Pedestrian Oriented/Service Street, and because mid-block between Jessie and Mission Streets is identified as an Exclusive Pedestrian Walkway, the City Planning Commission would review the re-alignment for consistency with the General Plan.

With respect to the pedestrian bridge proposed over Mission Street to connect the Emporium Site with the Fifth and Mission Garage and the vacation of a portion of Jessie Street, the following objectives and policies of the Urban Design Element of the General Plan are relevant:

- Objective 1: Emphasis of characteristic pattern which gives to the City and its neighborhoods an image, a sense of purpose and means of orientation.

Policy 1: Recognize and protect major views in the City with particular attention to those of Open Space and Water.

Policy 2: Recognize, protect and reinforce the existing street pattern, especially as it is related to topography.

Policy 3: Increase the visibility of major destination areas and other points of orientation.
- Objective 3: Moderation of major new development to complement the city pattern, the resources to be conserved, and the neighborhood environment.
- Objective 4: Improvement of the neighborhood environment to increase personal safety, comfort, pride and opportunity.

Policy 4: Design walkways and parking facilities to minimize danger to pedestrians.

Policy 8: Maintain a strong presumption against the giving up of street areas for private ownership or use, or for construction of public buildings.

Policy 9: Review proposals for the giving up of street areas in terms of all the public values that streets afford.

Policy 10: Permit release of street areas, where such release is warranted, only in the least extensive and least permanent manner appropriate to each case.

Objective 12 of the Downtown Plan states “conserve resources that provide continuity with San Francisco’s past.” Policy 1 of this objective states “preserve notable landmarks and areas of historic, architectural, or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.” Policy 2 states “use care in remodeling significant older buildings to enhance rather than weaken their original character.”

To implement these policies, the Downtown Plan defines categories of buildings based on their architectural importance and provides for Conservation Districts. The portion of the project between Market and Jesse Streets is located in the Kearny-Market-Mason-Sutter Conservation District, as indicated on Map 4, p. II.1.25 of the Downtown Plan. Any demolition or remodeling of the Emporium, a Category 1 building under Article 11 of the City Planning Code, including the relocation and re-use of preserved sections of the structure, would require the Planning Commission to make findings of consistency with General Plan policies regarding preservation as set forth in the Downtown Plan.

For further discussion of impacts regarding architectural resources in relation to the Downtown Plan, see Section III.B, Architectural Resources.

Yerba Buena Redevelopment Plan

The project would amend the *Yerba Buena Redevelopment Plan* to include the Project Site (see Figure 1, p. 32) in the Yerba Buena Redevelopment Project Area. Proposed amendments to the YBC Redevelopment Project Area would replace the existing, underlying zoning with the adjacent YBC Redevelopment Project Area zoning designation of "Downtown Retail." This designation specifically permits hotel uses. The project also would include amendment of the *Yerba Buena Center Redevelopment Plan Design for Development* document. The proposed Emporium Site development then would be subject to policies and controls set forth in the *Yerba Buena Center Redevelopment Plan* and its *Design for Development* document. The Redevelopment Agency and the City currently are drafting amendments to the *Redevelopment Plan* and *Design for Development* document that would accommodate development of the Emporium Site. Amendments to the *Design for Development* document would establish design objectives, standards and guidelines to allow and control development of the project. For the necessary amendments to be adopted, the *Yerba Buena Redevelopment Plan* must first be found in conformity with the General Plan; this requirement generates the amendments to the Downtown Plan discussed above.

The project would conflict with Downtown Plan Objective 12, because of the demolition and alteration of important features of the Emporium Building, as discussed in Section III.B, Architectural Resources. The project would be considered to conflict with Transportation Element Policy 20.2, regarding avoiding conflicts on transit preferential streets with driveways and loading areas. No substantial conflict between the proposed project and General Plan policies and objectives, other than those discussed above, have been identified. The decision-makers may identify other potential conflicts between the project and other policies of the General Plan, Area Plan and other plan elements. Those conflicts would not be considered significant effects. As part of the project approval process, decisions would be made balancing the potentially conflicting goals of different General Plan policies, Area Plans and plan elements.

B. ARCHITECTURAL RESOURCES¹

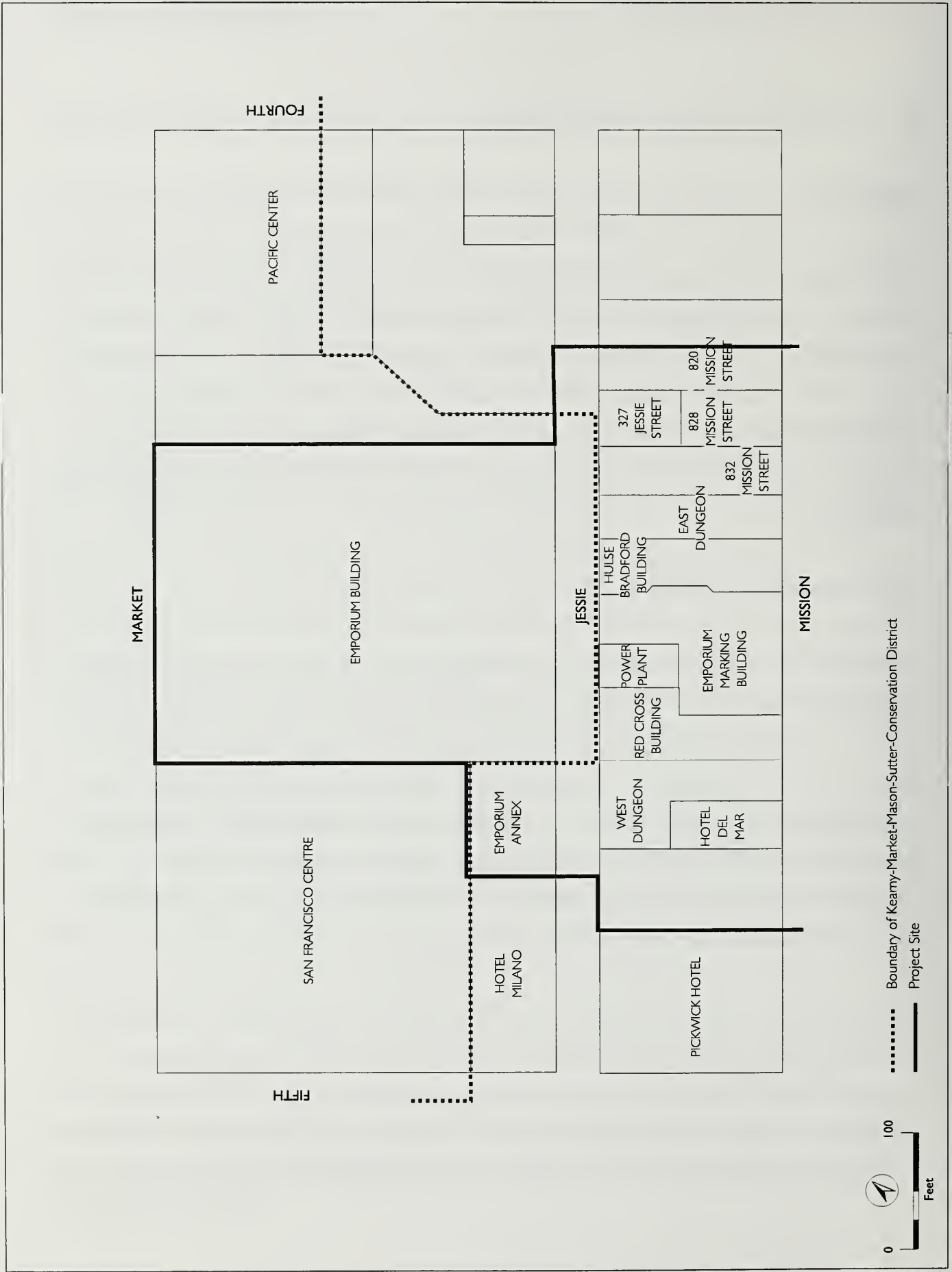
SETTING

This Setting section includes information on the history, architecture and significance of the 10 buildings on the Emporium Site, and discusses architectural surveys and designations in San Francisco. The Fifth and Mission Garage, completed in the 1960s, would be part of the Project Site. Because the Fifth and Mission garage has not been determined eligible for the National Register and is not included in any list or rated in any other historic survey, the building is not discussed further in this chapter. Figure 9 identifies existing buildings on the Emporium Site.

THE EMPORIUM BUILDINGS

Albert Pissis, the architect of the Emporium Building, was one of the first Americans to be trained at the École des Beaux Arts in Paris. Pissis, most active between 1890 and 1910, was well known for his classically inspired, monumental buildings of stone and terra-cotta. His two largest commissions, the Emporium and the Flood Building (across Market Street at Powell Street, City Landmark No. 154), fit this mold. Other major Pissis projects include the Hibernia Bank Building (1889) at Jones and Market (City Landmark No. 130), the Crocker Bank Building (1910), the White House (1907-1908) at Sutter and Grant, and the Mechanics Institute (1908-1909) at Post near Kearny.

Located on Market Street between Fourth and Fifth Streets, the Emporium Site previously housed the campus of St. Ignatius College. In 1896, the seven-story Parrott Building, designed by Pissis, opened on the site with the first two floors devoted to the Emporium's retail space. The other floors were designated for use by the California Supreme Court and as offices and warehouse space. The building included a rotunda and a 100-foot dome.



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 9 EXISTING BUILDINGS ON THE PROJECT SITE

Structurally, the Emporium Building withstood the 1906 earthquake, but after the fires all that remained was the seven-story facade facing Market Street. With the facade intact, the building was reconstructed in a similar fashion, for the express use of the Emporium. The facade and much of the structural steel were reused and the interior arrangements remained similar.² A larger dome, forming a skylit rotunda above two main floors, replaced the original dome. Concrete foundations, marble floors and a glass-encased first floor arcade of display windows were also part of the 1908 design.

The building was expanded in 1916 by Pissis' successor, Morris Bruce, who added an additional story to the Jessie Street frontage and opened the dome into the new third floor space that surrounded it. In 1917, a 200,000-square-foot annex was completed adjacent to this Jessie Street facade for office and storage space. In 1933, construction of the Emporium Marking Building across Jessie Street was completed. This building was internally connected to adjacent, older warehouse buildings that had been acquired by the Emporium. In that same year, these older buildings were connected to the original Emporium block by the construction of two pedestrian bridges across Jessie Street. Escalators were added to the Emporium Building in 1936. In 1957, five air-handling units were added to the roof light wells and four were added to the dome of the Emporium. These nine units continue to serve the building today. Openings at the third floor of the dome (once windows to the exterior) were re-glazed or filled with blank panels to prevent the stratified air within the dome from entering the mechanically cooled third floor. Between 1969 and 1970, the Emporium basement was connected to the then-new BART tunnel beneath Market Street. In 1977, the Market Street arcade of windows was removed to increase selling space and a newly renovated, elevated restaurant was constructed under the dome. In 1989, the west side of the Emporium Building was opened into the San Francisco Centre. The Emporium closed in 1996. The first floor of the building is currently occupied by Macy's Home Furnishings Department. Macy's also has office and storage space in some other areas of the former Emporium Buildings.

Emporium Building Description

The Emporium Building consists of a rectangular block, 275 feet long and 355 feet deep, with a main, seven-story facade facing Market Street (see Figure 10A) and a four-story facade on Jessie Street (see Figure 11). A large central aisle, nearly 40 feet wide, bisects most of the building from Market to Jessie Streets and opens into the central domed, skylit court. Intended to be read as an interior space, the dome was masked by the height of the Market Street facade (see Figure 10B for a photograph of the rotunda in 1946). As a result, the exterior of the dome, in contrast to the interior court, is utilitarian in nature.

The 1896 building was originally constructed of steel framing with wood flooring and unreinforced masonry bearing walls and “infill” walls on all sides; the foundation consists of large stacked granite blocks. The 1908 reconstruction used much of the same steel framing, while a cast-in-place concrete floor slab replaced the wood flooring. Hollow clay-tile partitions were used extensively as fire walls. Three floors and a full basement cover the full footprint of the building.

Market Street Facade

The Market Street facade (Figure 10A) is composed of large sandstone blocks that have been painted gray. Three arched entrances open onto a quarter-block-long arcade. The original arcade of display windows along Market Street has been infilled to create more interior floor space. The main entrance is a centrally placed two-story arch with two-story pilasters on either side. Intermediate arches that once marked entries to the arcade have been moved and the openings infilled. A three-story Corinthian colonnade of carved sandstone over two-story arched window openings is located at levels four through six. This configuration varies over the central bay, which has a larger arched window flanked by pedimented openings similar to those of the end bays. The seventh floor is ornamented with columns in half-relief rising to the balustrade at the roof edge. A dentilated cornice tops this formal composition. Display windows at the mezzanine level, once glass, have been filled with blank panels.



SOURCE: Victoria Visuals.



SOURCE: Patri Merker Architects/Emporium archives.

I 0A (above): View of Market Street facade of Emporium, 1998.

I 0B (right): View of Emporium Rotunda, 1946.

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT

FIGURE I 0A VIEW OF EMPORIUM BUILDING FROM MARKET STREET
FIGURE I 0B VIEW OF EMPORIUM ROTUNDA, 1946



SOURCE: Vittoria Visuals.

11A (above): View of Jessie Street facade of Emporium, looking East, with bridge to Hulse-Bradford Building, 1998.

11B (right): View of the Emporium Annex, Jessie Street facade, 1998.



SOURCE: Vittoria Visuals.

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT**

FIGURE 11A VIEW OF EMPORIUM BUILDING - JESSIE STREET FACADE

FIGURE 11B VIEW OF EMPORIUM ANNEX - JESSIE STREET FACADE

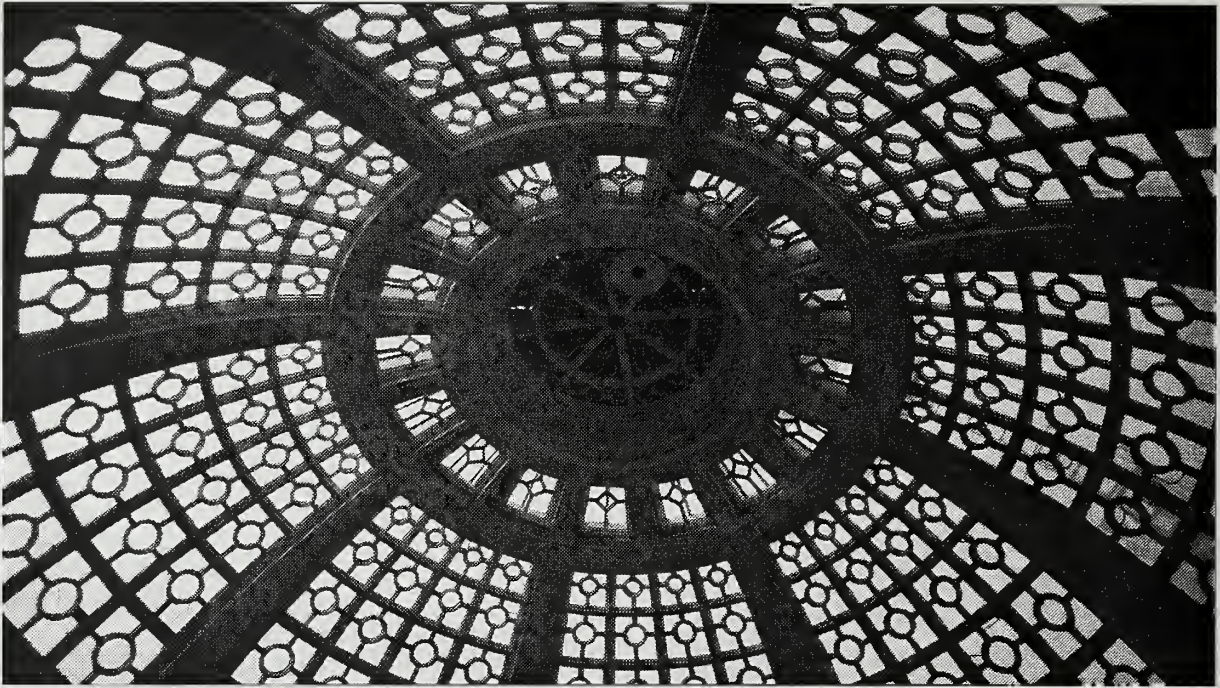
Jessie Street Facade

The four-story Jessie Street facade is five bays of brick with ornamental stucco surfacing, and is linked by two enclosed pedestrian bridges to Emporium storage facilities across Jessie Street (see Figure 11A, p. 66). The first and second levels of the Jessie Street facade have columns in half relief. A central entrance, flanked by paired pilasters, consists of a stairway leading to a pair of glazed double doors. There is a rolling garage door at each end bay at the ground level. The fourth level was added in 1916. Horizontal banding marks each floor and molded cornice tops the Jessie Street facade. A fifth-floor penthouse is present at the east and west sides of the roof.

The Dome and Rotunda

The glass-domed rotunda, 102 feet in diameter and 51 feet high, extends through the second and third floors of the building. Like the first Emporium dome, this glass architecture is invisible from the street. The translucent glass dome springs from the ceiling of the third floor. The dome, constructed of steel and sheet metal with glass panels, is ringed by a pillared gallery, with Ionic columns in groups of threes at the second level, and columns with egg and dart capitals, in groups of threes, at the first level.

In 1908, the dome was highlighted by electric lights around its main cornice, as well as around its third floor windows and its peak. Galleries at the second and third floors are now infilled. This work was completed some time following the 1908 reconstruction. The third floor did not open into the dome until 1916, when an additional floor was added to the building (these openings were originally glazed with art glass in a circular pattern similar to that of the dome glazing above). Figure 10B, p. 65, shows the dome and rotunda in its 1946 condition, and Figures 12A-12B as it currently exists.



SOURCE: Architectural Resources Group



SOURCE: Architectural Resources Group

12A (above): View of Emporium dome glass, 1998.

12B (right): View of Emporium Rotunda, infill of balconies, 1998.

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT**

FIGURE 12A VIEW OF EMPORIUM DOME GLASS, 1998

FIGURE 12B VIEW OF EMPORIUM ROTUNDA, 1998

The dome marks the core of the store's circulation system, where the central aisle once met the stairway, which, at the furthest end of the rotunda, leads to the second level. The stair, originally detailed with marble floors, bronze balusters and large bronze light standards at the first level, was removed. Outside the domed space, the building's ordering feature is a regular column grid, forming 16- by 24-foot bays from the basement through third-floor levels.

Existing Structural Condition

An evaluation of the Emporium Building's seismic condition was prepared for the project sponsor; the following discussion is based on the findings of that report.³ The Emporium Building lacks a complete seismic force resisting system in the east-west direction. In addition, the building's exterior walls are, in substantial part, unreinforced masonry bearing (UMB) walls. The building will be subject to mandatory seismic upgrade requirements due to known seismic hazards inherent in UMB construction. The analysis also suggests that additional voluntary seismic strengthening and a falling-hazard mitigation program to protect life safety be implemented. The extent of potential non-structural store improvements above a certain set threshold may trigger an overall seismic upgrade pursuant to the San Francisco Building Code. The requisite structural modifications would have an effect on the programming and function of the floor plans in the upgraded building due to the placement of a relatively large number of braces or shear walls in locations such as along the interior of the Market Street facade.

The analysis also indicates that the glass panels of the dome could fail in an earthquake, cracking freely into large pieces which would fall into the atrium. Furthermore, analysis revealed overstressing in the steel frame of the dome. The report concludes that the dome should be re-glazed with laminated glass and additional bracing should be provided at the base of the dome where none exists. In order to bring the dome to current code standards,

many of the materials which comprise the dome, such as plaster and metal lath over wood sub-framing, would have to be replaced. Existing steel framing could be re-used.

A substantial portion of the Market Street wall consists of gravity load-bearing unreinforced masonry piers. In its current configuration, this wall may not comply with the City of San Francisco UMB ordinance. The report suggests the following: the facade veneer should be re-pinned; a new gravity load carrying system should be provided, or the existing system strengthened; anchorage of the wall to the existing floor diaphragms should be strengthened (or in the case of new construction, provided); and brick masonry piers should be strengthened or backed with shotcrete.

OTHER BUILDINGS ON THE EMPORIUM SITE

Figure 9, p. 62, identifies the locations of the buildings discussed below.

Emporium Annex (1916), 364-374 Jessie Street

In 1916, a nine-story, rectangular building was constructed to the west of the main building (see Figure 11B, p. 66). Built of a concrete frame with a non-bearing, unreinforced brick exterior, this building added 200,000 square feet of space to the Emporium. The mezzanine level was filled in 1926 to form a full second-floor level, bringing the total number of floors to 10. Floors one through seven held storage and offices, the eighth floor a cafeteria and the ninth and tenth a gymnasium (most recently used as an auditorium).

East and West 'Dungeons'

These parcels were acquired by the Emporium corporation in 1924 (see Figure 14A, p. 73). The east and west dungeons are one-floor, steel-frame, shed-roofed buildings that served as

loading docks. From the exterior, these buildings appear to be steel girders from which rolling garage doors are hung.

Hulse Bradford Building (1917), 345-349 Jessie Street

This four-story, wood-frame building has a masonry exterior, painted gray, and a flat roof (see Figure 13A and 14A). It is connected to the main Emporium Building by a pedestrian bridge at its fourth floor and roof levels. Little information was available on this building's history. It is not mentioned in *Splendid Survivors*⁴, and The Foundation for San Francisco's Architectural Heritage records are limited to a survey of the building's exterior features.

Emporium Marking Building (1933), 353 Jessie Street

This four-story, steel-frame and reinforced concrete building with a flat roof is Streamline Modern in style (see Figure 14A, p. 73). Constructed in 1933, this building was intended to serve as the site for the Emporium to mark stock. The building served the Emporium's needs until 1996.

Red Cross Building (1910), 363 Jessie Street

Constructed in 1910, this four-story, wood-frame building with a masonry exterior is painted gray and has a flat roof (see Figure 14A). This building was listed on 1913 Sanborn Map as a hat factory and was used to store Red Cross's bandages during the World War I. The Emporium acquired the building in 1924. It was connected to the main Emporium Building by a pedestrian bridge at its third floor and fourth levels in 1933.



SOURCE: Architectural Resources Group

13A (above): View of the Hulse-Bradford Building, Marking Building and Red Cross Building, along Mission Street, looking West, 1998.

13B (right): View of the Del Mar Hotel, along Mission Street, looking West, 1998.



SOURCE: Architectural Resources Group

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT**

**FIGURE 13A VIEW OF RED CROSS BUILDING, MARKING BUILDING, HULSE-BRADFORD BUILDING
FIGURE 13B VIEW OF DEL MAR HOTEL, MISSION STREET**



SOURCE: Architectural Resources Group

View of Hulse-Bradford Building, East Dungeon, 832 and 828 Mission Street Buildings, along Mission Street, looking West, 1998.



SOURCE: Architectural Resources Group

View of 832, 828 and 820 Mission Street Buildings, along Mission Street, looking East, 1998.

YERBA BUENA REDEVELOPMENT PROJECT AREA
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**FIGURE 14A VIEW OF RED CROSS BUILDING, MARKING BUILDING, HULSE BRADFORD BUILDING,
EAST DUNGEON, 832 MISSION STREET, AND 828 MISSION STREET**

FIGURE 14B VIEW OF 832 MISSION STREET, 828 MISSION STREET AND 820-MISSION STREET

Del Mar Hotel (1913), 870-872 Mission Street

This five-story, wood-frame building with a brick and block exterior, is painted gray, and has a flat roof (see Figure 13B, p. 72). It was originally designed as a 75-room, 38-bath residential hotel by architects MacDonald and MacDonald for owner, H. Baker Fisher. The Emporium Corporation purchased the building in 1924. San Francisco Building Department records show that it was used as a hotel until 1967, at which time the ground-level storefronts were removed and infilled for security reasons and it was converted into office space.

327 Jessie Street (1917)

This one-story, wood-frame shop building was designed by architect William Beasley for an owner named Barnett. It was acquired by the Emporium in 1924 along with other parcels on Jessie Street, and housed the Emporium's paint and woodworking shops. This building occupies the Jessie Street side of the 828 Mission Street lot.

Pedestrian Bridges (1933)

Both pedestrian bridges connecting the Emporium Buildings were constructed in 1933. They were intended to improve the circulation of the Emporium complex as it was bisected by Jessie Street.

In addition to the buildings linked to the Emporium's operations, the following buildings would be affected by the proposed project:

The Milwaukee Furniture Building (1911), 832 Mission Street/339 Jessie Street

This five-story brick building with Renaissance and Baroque detailing and a flat roof was constructed by Sage Watson and F.M. McSherry for Berker, Knickerbocker & Bostwich, Real Estate (see Figure 14B, p. 73). It is identified on the 1913 Sanborn map as a wholesale furniture retailer. The ground floor currently houses restaurants with office space on upper floors.

828 Mission Street (1916)

This two-story building covers the south half of the lot, adjacent to the 327 Jessie Street building (see Figure 14B, p. 73). It was designed of brick and steel by architect Mel I. Schwartz for owner A. Aronson. At one point, this building, along with the 832 Mission Street building housed Robert Milwaukee Furniture. It now houses retail uses on its ground floor.

The American Type Foundry Building (1907), 820 Mission Street

This five-story, reinforced concrete building with a flat roof was designed as a factory for the Swett Company by engineer Dankerley Burrell and constructed by Continental Fire Proofing. The building currently has office floors and ground-floor retail space.

ARCHITECTURAL SURVEYS

The San Francisco Department of City Planning conducted a citywide inventory of architecturally significant buildings in 1976. In the 1976 Department of City Planning Architectural Inventory, approximately 10% of the City's entire stock of buildings was awarded a rating for architectural merit ranging from a low of '0' to a high of '5.' The total number of buildings which were rated from '3' to '5' represent less than 2% of the City's

entire building stock and are considered by survey participants to be the best of the City's architecture. The Emporium Building was rated '3' in the 1976 survey. None of the other buildings on the Project Site were rated in the 1976 survey.

The Foundation for San Francisco's Architectural Heritage (Heritage) survey, published in 1979, included structures in the greater downtown area. The Heritage survey employed 13 rating categories in four headings that are based on criteria of the National Trust for Historic Preservation: architecture, history, environment and integrity. These same categories were later adopted for the survey conducted in the development of the Downtown Plan.⁵ Summary ratings from 'A' to 'D' were assigned to each building on the basis of evaluation in the 13 ratings categories, with 'A' representing buildings of Highest Importance. 'B' buildings are of Major Importance. 'C' buildings are of Contextual Importance, and 'D'-rated structures are of Minor or No Importance. Buildings not rated by Heritage are those that have been built or suffered insensitive exterior remodelings since 1945. The Emporium Building was rated 'A', indicating that the building is architecturally of the highest importance. 'A' rated buildings are "individually the most important buildings in downtown San Francisco, distinguished by outstanding qualities of architectural, historical values, and relationships to the environment." The Heritage survey considers all A-group buildings eligible for the National Register, and highest priority for City Landmark status.

None of the other buildings on the Project Site were evaluated in the Heritage survey.

SAN FRANCISCO GENERAL PLAN

The Downtown Plan, an Area Plan of the *San Francisco General Plan*, establishes ratings for buildings based on their architectural significance. Category I buildings are deemed to be of the "highest architectural and environmental importance - buildings whose demolition would constitute an irreplaceable loss to the quality and character of downtown" (p. II.1.23). The Downtown Plan also establishes conservation districts to facilitate preservation of areas with

special characteristics and qualities. As specifically listed with Planning Code, the Emporium Building was rated a Significant Building - Category I. The Emporium Building is also within the Kearny-Market-Mason-Sutter Conservation District. Downtown Plan policies regarding architectural resources are implemented through Article 11 of the City Planning Code, as discussed below.

Relevant objectives and policies of the Downtown Plan include the following:

- Objective 12: Conserve resources that provide continuity with San Francisco's past.

Policy 1: Preserve notable landmarks and areas of notable landmarks and areas of historic, architectural, or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.

Policy 2: Use care in remodeling significant older buildings to enhance rather than weaken their original character.

Objective 12 of the Downtown Plan also establishes "key implementing actions" which include:

- Require retention of the highest quality buildings and preservation of their significant features. Provide incentives for retention of other highly rated buildings, and encourage retention of their significant features. (p. II.1.24)
- Demolition of Significant Buildings would be permitted only if public safety requires it or, in taking into account the value of TDR, the Building retains no substantial remaining market value. (p. II.1.24)

CITY PLANNING CODE

Article 10 of the City Planning Code sets forth procedures regarding the preservation of sites and areas of special character or special historical, architectural or aesthetic interest or value. Article 10 implements preservation through City designation of Landmarks and Historic Districts. Neither the Emporium Building nor any of the other structures on the Project Site are Article 10 landmarks and the Project Site is not within an Article 10 historic district.

Article 11 of the City Planning Code is intended to maintain buildings and areas "of special architectural, historical and aesthetic character" within the C-3 District (the Downtown) of San Francisco. Appendices A to D of Article 11 list C-3 District buildings classified as Significant (Category I or II) or Contributing Buildings (Categories III or IV). Section 1103.1 designates the Kearny-Market-Mason-Sutter Conservation District, and Article 11 identifies the Emporium Building as a Significant Building - Category I. Section 1102 lists standards for Significant Buildings - Category I as those:

- 1) are at least 40 years old; and
- 2) are judged to be Buildings of Individual Importance; and
- 3) are rated excellent in Architectural Design or are rated Very Good in both Architectural Design and Relationship to the Environment.

Standards for reviewing alterations to Category I buildings are set forth in Section 1111.6 of the City Planning Code:

- (a) The proposed alteration shall be consistent with and appropriate for the effectuation of the purposes of this Article 11.
- (b) For Significant Buildings - Categories I and II, and for Contributory Buildings - Categories III and IV, proposed alternatives of structural elements and exterior features shall be consistent with the architectural character of the building, and shall comply with the following specific requirements:
 - (1) The distinguishing original qualities or character of the building may not be damaged or destroyed. Any distinctive architectural feature which affects the overall appearance of the building shall not be removed or altered unless it is the only feasible means to protect the public safety.
 - (2) The integrity of distinctive stylistic features or examples of skilled craftsmanship that characterize a building shall be preserved.
 - (3) Distinctive architectural features which are to be retained pursuant to Paragraph (1) but which are deteriorated shall be repaired rather than replaced, whenever possible. In the event replacement is necessary, the new material shall match the material being replaced in composition, design, color, texture and other visual qualities. Repair or replacement of mission architectural features shall be based on accurate duplication of features, substantiated by historic, physical or pictorial evidence, if available, rather than on conjectural designs or the availability of different

architectural elements from other buildings or structures. Replacement of nonvisible structural elements need not match or duplicate the material being replaced.

- (4) Contemporary design of alterations is permitted, provided that such alterations do not destroy significant exterior architectural material and that such design is compatible with the size, scale, color, material and character of the building and its surroundings.
- (5) The degree to which distinctive features need be retained may be less when the alteration is to exterior elements not constituting a part of the principal facade or when it is an alteration of the ground-floor frontage in order to adapt the space for ground-floor uses.
- (6) In the case of Significant Buildings - Category I, any additions to height of the building (including addition of mechanical equipment) shall be limited to one story above the height of the existing roof, shall be compatible with the scale and character of the building, and shall in no event cover more than 75 percent of the roof area.

The Emporium has been rated Significant Building, Category I, by the San Francisco Planning Department, pursuant to Article 11, Section 1102 because:

- It is over 40 years old;
- It is individually important, as indicated by ratings of excellent or very good in various architectural, historical, and environmental categories; and
- Its architectural design and relationship to the environment are both rated as excellent.

The evaluation upon which this rating is based is on file at the San Francisco Planning Department.

Article 11, Section 1103 provides for designation of portions of the C-3 District as a Conservation District if they "contain substantial concentrations of buildings that together create subareas of special architectural or aesthetic importance. Appendix E, Section 5 bases the justification for the Kearny-Market-Mason-Sutter Conservation district for the area's historical development as a nexus for retail activity and hotel uses, and for the character of its architecture. Much of the district's uniqueness derives from the streetscapes, sidewalk

activity, and the particular collection of shops in “one of the few homogenous collections of early Twentieth Century commercial architecture of its type in the United States. Of a total 324 buildings in this District, 114 are architecturally significant and 140 are contributory” (Appendix E, Section 5(d)). The Emporium Building is the only part of the Project Site within the Kearny-Market-Mason-Sutter Conservation District (see Figure 9, p. 62).

SIGNIFICANCE OF SITE BUILDINGS

Architecturally, the Emporium Building, particularly its facade, is a strong contributor to the streetscape along Market Street. In conjunction with the Pacific Center (801-823 Market Street), the Commercial Building (825-833 Market Street), the Flood Building (870-898 Market Street) and the Hale Brothers Department Store (901-919 Market Street), it forms a consistent early 20th-century architectural context.

The Emporium is a significant architectural resource as the only remaining, primarily intact, early 20th-century department store in San Francisco. Other department stores, including the City of Paris and the White House, have either been demolished or extensively altered. As an extant building designed by the important San Francisco architect, Albert Pissis, it contributes to the understanding of his influence on the City’s architectural development.

While it has not been officially evaluated by the State Office of Historic Preservation (SHPO), in the opinion of the Architectural Resources Group, the Emporium Building is eligible for listing in the National Register of Historic Places under criteria ‘a’ and ‘c’. US Department of Interior regulations (36 CFR 60.4) describe the criteria for listing on the National Register of Historic Places as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the

lives of persons significant to our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or (d) that have yielded or may be likely to yield information important in history or prehistory.

No other buildings on the Project Site are rated as architecturally significant, or are included in any local, state, or federal list of significant, historic buildings.

IMPACTS

SIGNIFICANCE CRITERIA

A project is normally found to have a significant effect on the environment if it will substantially disrupt or substantially adversely affect a property of historic significance or conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the Planning Code. CEQA Section 21084.1 states that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." This section defines "historical resource" as one that is listed in, or determined eligible for listing in, the California Register of Historical Resources, and states that resources listed in a local register of historical resources "are presumed to be historically or culturally significant." A "local register of historic resources" is defined in Public Resources Code Sec. 5020.1 as "a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." A "substantial adverse change" is defined in Public Resources Code Sec. 5020.1 as "demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired."

IMPACT ANALYSIS

Emporium Building

The proposed project, with the exception of the Market Street facade, would demolish all of the Emporium Building's exterior walls including the Jessie Street facade. The dome and a portion of the rotunda would be retained, but relocated. New construction is proposed to replace the area behind the Market Street facade. This extensive reconfiguration of the Emporium would result in the loss of an important San Francisco resource that represents the evolution of the department store building type in the City. Because the building is architecturally significant, as indicated by its Article 11 Category I rating, and meets the definition of an historical resource pursuant to CEQA Section 21084.1, the demolition of most of the building and alteration of many of its key architectural elements would constitute a significant adverse impact.

The project would affect a Category I building within the Kearny-Market-Mason-Sutter Conservation District. As described above, the Market Street facade would be retained, and the dome relocated. Most of the remaining building would be demolished. In relation to the character of the Conservation District with a consistent pattern of the early 20th century retail core of San Francisco, the project would retain the Emporium Building's Market Street facade. This would maintain the streetscape character associated with the Kearny-Market-Mason-Sutter Conservation District. In addition, the Emporium Building is one building in a large Conservation District. Therefore, while the project would implement changes to an important resource within the Conservation District, it would not have a substantial adverse effect on the overall significance of the Kearny-Market-Mason-Sutter Conservation District.

Other Site Buildings

Throughout its development the Emporium constructed or acquired ancillary buildings adjacent to the main 1908 structure, including the Emporium Annex in 1916; the Red Cross Building, the Hulse Bradford Building and the Del Mar Hotel; and the Emporium Marking Building. These structures contribute to the understanding of the site's history and the Emporium as a successful San Francisco business, but they are not as significant to the interpretation of the Emporium's history as is the main 1908 building. Adjacent buildings, the Milwaukee Furniture Building, at 828 Mission Street, also would be affected by the proposed development. All those structures, with the exception of the American Type Foundry Building at 820 Mission Street, would be demolished, for new construction or for realignment of Jessie Street. The 820 Mission Street Building, which would border the new Jessie Street East, would be retained and possibly renovated.

These buildings, while they help to form a consistent early 20th-century group along Mission Street adjacent to the Emporium Building, are not considered architecturally significant. None of these structures are listed as Article 10 City Landmarks, Article 11 Significant or Contributory buildings, are in the 1976 DCP Survey, are rated by Heritage, nor are within the Kearny-Market-Mason-Sutter Conservation District. None of these buildings are considered eligible for listing in the National Register of Historic Places and none meet the definition of an historical resource as set forth in CEQA Section 21024.1. Demolition of these buildings would not be a significant impact on architectural resources.

NOTES - Architectural Resources

1. Descriptions of buildings and their significance are based on the Architectural Resources Group's *Emporium Building Complex, Historical Background and Context*, June 15, 1998. This report is on file and available for public review at the Planning Department, 1660 Mission Street, Fifth Floor.
2. *Structural Evaluation and Survey - The Emporium* by Nabih Youssef & Associates, p.18: "The structural plans note that a significant amount of structural steel from the original construction was re-used in the 1908 construction. Each steel beam is noted as either "existing - in place," "existing - to be re-used," or "new."

III. Environmental Setting and Impacts
B. Architectural Resources

3. The report, *Structural Evaluation and Survey - The Emporium* by Nabih Youssef & Associates, February 1997. The document is available for public review at the San Francisco Planning Department, 5th Floor, 1660 Mission Street, San Francisco, CA. These findings have not been independently verified and are presented in the EIR for informational purposes, not as the basis for analysis.
4. *Splendid Survivors*, Charles Hall Page and Associates, Inc. for the Foundation for San Francisco's Architectural Heritage, 1979.
5. The 13 categories are essentially those used by the Foundation for San Francisco's Architectural Heritage in its book *Splendid Survivors*: architecture (style, construction, age, architect, design, interior); history (person, event, patterns); environment (continuity, setting, landmark), and integrity.

C. URBAN DESIGN AND VISUAL QUALITY

SETTING

Visual quality in an urban setting is comprised of elements such as building scale, height, architectural features and materials, patterns of buildings along street frontages, and views of public open space or plazas or of more distant landscape features such as hills, the Bay or built landmarks, such as bridges. These elements help define the sense of place in an urban context. In general, positive urban design character in San Francisco, as reflected in General Plan policies, encourages "street walls" of buildings fronting on sidewalks, maintaining buildings of architectural character, moderating scale of new development to relate to existing, older buildings, and protection of important views of open space or landmarks.

The Project Site, on portions of Assessor's Blocks 3705 and 3724, is bounded by Market, Fourth, Mission, and Fifth Streets, and by Mission, Fourth, Minna, and Fifth Streets, respectively. The mid-block portion of Jessie Street, an east-west service street between Fourth and Fifth Streets, would be part of the Project Site. Structures on the site range from one to nine stories and vary from wood-frame to steel-frame and reinforced concrete construction. Part of the Project Site, the Fifth and Mission Garage, was completed in the 1960s. All other structures on the site date from between 1908 and 1933. Lots 17 and 18 on Block 3705 are currently surface parking facilities. Lot 43, on Assessor's Block 3705, the Emporium Building, is a classically inspired department store building faced with sandstone on the seven-story Market Street facade. The four-story Jessie Street facade of the Emporium Building consists of brick and ornamental stucco along five bays with two enclosed pedestrian bridges connecting the structure to Emporium storage facilities across Jessie Street. For further discussion of the architectural significance of the Emporium Building and other buildings on the site, see Section III.B, Architectural Resources.

The project vicinity is a mix of newer mixed-use retail, hotel, and entertainment buildings to the south and east along Mission and Fourth Streets within the Yerba Buena Redevelopment Area, older mixed-use retail and office buildings to the north along Market Street and hotel and retail activities west of the Project Site along Fifth Street and Mission Street. This area includes San Francisco's downtown retail core along Market Street and to the north, established in the late 19th century, and recent development in Yerba Buena Center (YBC). Buildings in YBC include contemporary designs such as the Moscone Convention Center, the Yerba Buena Center for the Arts and the under-construction Sony Metreon Entertainment Center that define the Yerba Buena Gardens open space in the Mission-Third-Howard-Fourth block. Building heights on the Project Site and in nearby areas range from two- to three-story commercial structures to seven- to nine-story retail and office buildings to the 360-foot, 39-story Marriott Hotel at Fourth and Mission (part of YBC).

Seen from Market Street, the Emporium Building is part of a group of 7- to 12-story post-Earthquake developments exhibiting a range of architectural styles. Many buildings, such as the Emporium Building, the 833 Market Street building, the Flood Building and Bank of America at One Powell and 901 Market, are of Beaux-Arts style with classical detailing. Others such as the Pacific Building have colored terra-cotta detailing. More recent development, such as the San Francisco Shopping Centre, are of contemporary design and materials. The Emporium Building is part of an ensemble on Market Street of historic, older buildings and more contemporary buildings with relatively consistent heights and street walls at the sidewalk line.

The area north of the Project Site on Market Street includes views of the Parc 55 Hotel, the Powell Street Cable Car Turnaround, the seven-story Bank of America Building at One Powell Street, the open space at Hallidie Plaza and the 12-story Flood Building. The north side of Market Street west of Stockton also includes the nine-story 800 Market Street building, and the five-story 830-840 Market Street building. These older buildings on the north side of Market are consistent with the character and scale of the Emporium Buildings, with street walls

defining active pedestrian frontages. On the south side of Market Street at Fourth, the Pacific Center is under construction. That project includes retail renovation within the nine-story shell of the existing Pacific Building. The Pacific Building was completed in 1907. Its colored terra-cotta facade details are considered to be in a "Sullivanese" style, after the early 20th century Chicago architect Louis Sullivan. The 16-story 22 Fourth Street building, built in 1981, is also part of the Pacific Center site. The 12-story 833 Market Street building, built in 1908, is directly east of the Project Site's Market Street frontage, and the seven-story San Francisco Shopping Center completed in 1988, is directly west of the Project Site. While the buildings along the Emporium block on Market Street vary in architectural style and age, the overall pattern of building height forms a consistent scale and street wall and active pedestrian frontage.

West of the Project Site and south on Fifth Street, are seven- to nine-story buildings including 901 Market at the southwest corner of Market and Fifth. Originally a department store, 901 Market is now office use with ground-floor and basement retail space. On the west side of Fifth Street are older retail buildings and the now closed Neo-classical style Old US Mint Museum, dating from 1874, at the northwest corner of Fifth and Mission. Directly south of the Mint across Mission Street is the four-story Art-Deco style San Francisco Chronicle building, with a seven-story clock tower. San Francisco Centre extends south on the east side of Fifth Street to the seven-story Milano Hotel at the northeast corner of Fifth and Jessie Streets. The nine-story Pickwick Hotel is between Jessie and Mission Streets along Fifth. Jessie Street provides pedestrian access to the south (employee) entrance of the Emporium Building, as did a walkway from Mission Street, near a mid-block cross-walk from the Fifth and Mission Garage. Jessie Street is also crossed by enclosed pedestrian bridges from the Emporium Building on the north to the Emporium storage facilities on the south.

The Mission Street frontage of the Emporium Site is a more diverse mixture of building heights and styles, compared to the Market Street frontage, including simplified classical and modern styles. Buildings along the north side of Mission Street on the Project Site range from

two-story retail to seven-story office/retail uses. The Fifth and Mission Garage extends the full block between Fourth to Fifth Streets, bounded on the south by Minna Street. Completed in the 1960s, the Fifth and Mission Garage is a seven-story parking structure with retail uses at the ground-level along Fourth Street. The 110-foot-high Sony Metreon complex is currently under construction at the southeast corner of Mission and Fourth Streets, extending south to Howard Street as part of Yerba Buena Gardens.

Figure 15A, p. 90, a view from Hallidie Plaza, shows the Emporium in the Market Street context, with the San Francisco Shopping Centre to its west, the Hotel Milano and Pickwick Hotel on Fifth Street and the rounded corner of the Flood Building on the north side of Market. The Marriott Hotel is visible in the background to the east.

Figure 16A, p. 92, is a view west on Mission Street from east of Fourth and includes the entrance to Yerba Buena Gardens, the Sony Metreon, the Mission Street frontage of the Emporium Site, the Fifth and Mission Garage and the Marriott Hotel. In the foreground on the north side of Mission is the brick-faced St. Patrick's Church. On the southwest corner of Mission and Fourth near to the Project Site is the seven-story San Francisco Community College Downtown Center. Distant views of Twin Peaks to the west can be seen down Mission Street.

Figure 17A, p. 94, is a view east from Mission Street west of Fifth, with part of the Old US Mint and the San Francisco Chronicle Building visible in the foreground. The Mission Street frontage of the Emporium Site is visible east of the Pickwick Hotel. The Fifth and Mission Garage is visible to the south. Background views include the Marriott Hotel, high-rise buildings near First and Mission, and Yerba Buena Island in San Francisco Bay at the foot of Mission Street in the distance.

IMPACTS

SIGNIFICANCE CRITERIA

A project may result in significant adverse visual quality impacts if it (1) degrades or obstructs scenic views from public areas, (2) introduces new sources of light or glare, or (3) has demonstrable negative aesthetic effects of the character of the surrounding area.

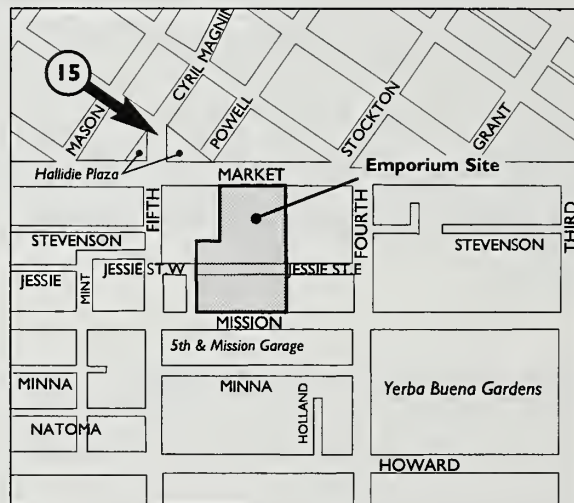
PROJECT EFFECTS

The proposed project would retain, restore, and rehabilitate the Market Street facade of the Emporium Building, and dismantle and relocate the dome at the roof level of the new structure, approximately 90 feet higher than its present location. The remainder of the structure and six other buildings on the Project Site would be demolished to develop new retail, entertainment, restaurant, cinema, and hotel uses. A portion of Jessie Street would be vacated and the remaining street segments would be realigned south to connections to Mission Street. The retail frontage on Mission Street would serve as a main entrance to those uses. New construction on Mission Street and realigned Jessie Street would rise from lot lines or sidewalks up to the sixth level.

Two hotel variants are being considered. Variant 1 would include a 10-story hotel (two-story hotel lobby and related uses and eight room floors) in an L-shaped tower, above the south side of the new building, rising approximately 280 feet above Mission Street. Variant 2 would include a 12-floor L-shaped hotel tower (two-story hotel base and 10 room floors), rising approximately 300 feet above Mission Street. Variant 2 would have setbacks from east to west on the hotel floors. Visual simulations of the new development with each hotel variant are shown in Figures 15, 16 and 17. The visual simulations illustrate general height and massing of the new building, and do not reflect a specific architectural design.



A. Existing View of Project Site



SOURCE: Square One Productions

NOTE: The visual simulations illustrate height and massing proposed for Emporium Site development but do not represent specific architectural design.

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 15 VIEW OF PROJECT SITE FROM
HALLIDIE PLAZA / CYRIL MAGNIN STREET, NEAR MARKET STREET**



B. View of Project Site with Variant 1

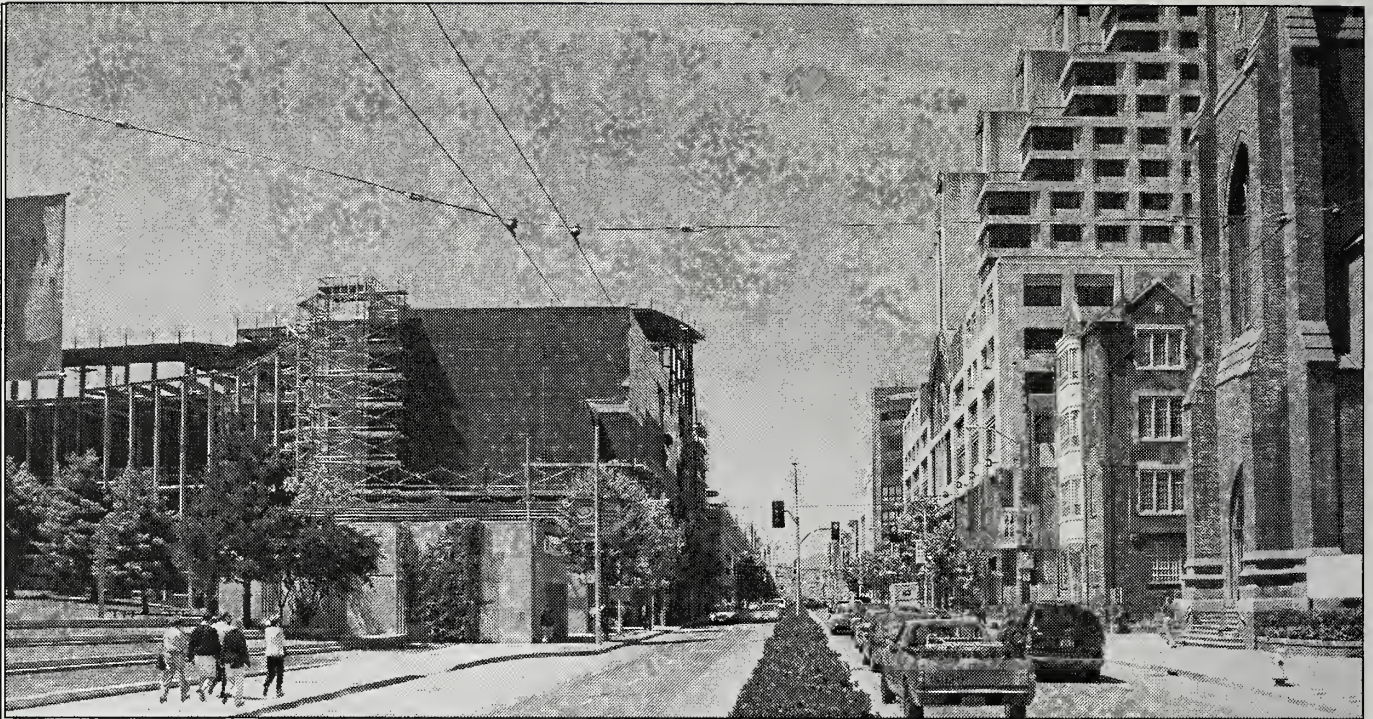


C. View of Project Site with Variant 2

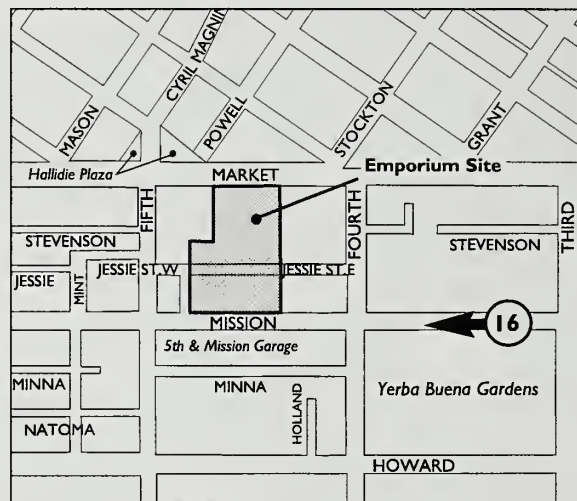
SOURCE: Square One Productions

NOTE: The visual simulations illustrate height and massing proposed for Emporium Site development but do not represent specific architectural design.

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 15 (CONTINUED) VIEW OF PROJECT SITE FROM
HALLIDIE PLAZA / CYRIL MAGNIN STREET, NEAR MARKET STREET**



A. Existing View of Project Site



SOURCE: Square One Productions

NOTE: The visual simulations illustrate height and massing proposed for Emporium Site development but do not represent specific architectural design.

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 16 VIEW OF PROJECT SITE
WEST FROM MISSION STREET EAST OF FOURTH STREET**



B. View of Project Site with Variant 1

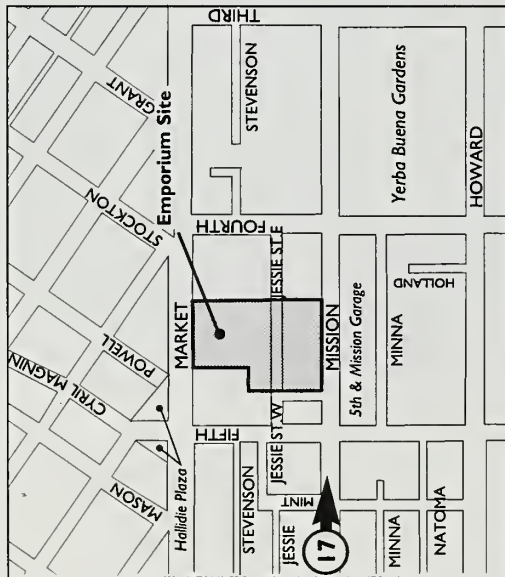


C. View of Project Site with Variant 2

SOURCE: Square One Productions

NOTE: The visual simulations illustrate height and massing proposed for Emporium Site development but do not represent specific architectural design.

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 16 (CONTINUED) VIEW OF PROJECT SITE
WEST FROM MISSION STREET EAST OF FOURTH STREET**



A. Existing View of Project Site

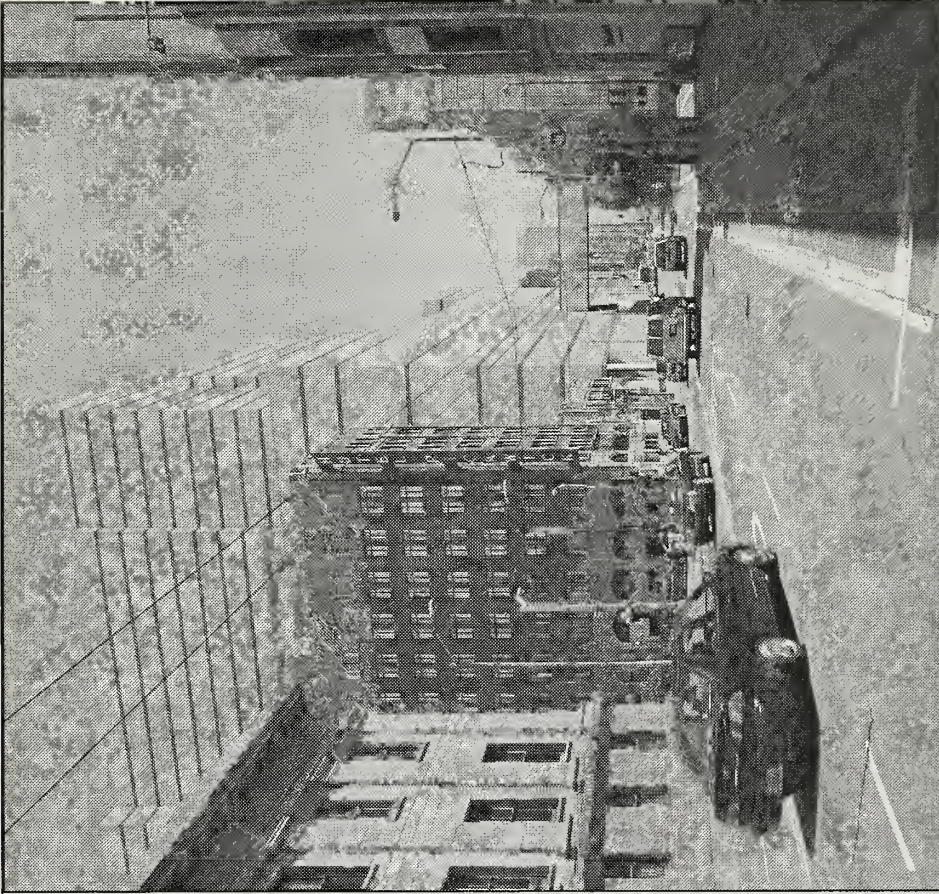
SOURCE: Square One Productions

NOTE: The visual simulations illustrate height and massing proposed for Emporium Site development but do not represent specific architectural design.

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 17 VIEW OF PROJECT SITE EAST FROM MISSION STREET WEST OF FIFTH STREET



B. View of Project Site with Variant 1



C. View of Project Site with Variant 2

SOURCE: Square One Productions

NOTE: The visual simulations illustrate height and massing proposed for Emporium Site development but do not represent specific architectural design.

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT**

FIGURE 17 (CONTINUED) VIEW OF PROJECT SITE EAST FROM MISSION STREET WEST OF FIFTH STREET

Hotel Variant 1

Figure 15B, p. 91, is a view from Hallidie Plaza at Eddy and Cyril Magnin Street, near Market. The dome, raised to a new rooftop position at its existing setback from the Market Street facade, and part of the hotel tower would be visible near the Project Site along Market Street between Grant and Stockton Streets. Approximately four stories of the tower would be visible from the open space at Hallidie Plaza. Neither the dome nor the hotel tower would be visible from directly across Market Street at Powell Street.

Figure 16B, p. 93, is a view west of the Project Site from Mission Street east of Fourth Street. The top of the pedestrian bridge, enclosed with glass windows, would be about 60 feet above the street. Views of Twin Peaks would be partially obstructed by the proposed pedestrian bridge, depending upon the location of the viewer. With short-range views, the bridge would be seen above the street, but would not directly block views of the hills. The proposed project would replace older existing buildings, with the hotel tower rising above the retail base. In relation to the Marriott Hotel and Sony Metreon in the foreground, the project would not be a major new element along this view from Mission Street.

Figure 17B, p. 95, is a view east of the Project Site from Mission Street, west of Fifth Street. The view would include the six-story retail/entertainment base on Mission Street, the ten-story hotel above (including the north-south wing of the hotel), and the proposed pedestrian bridge to the Fifth and Mission Garage. This replacement of existing two- to nine-story buildings on the north side of Mission with a development up to about 280 feet would contrast in scale and height compared to older, existing buildings on or near the Project Site. The top of the pedestrian bridge, enclosed with glass windows, would be, as noted above, about 60 feet above the street. From other short-range views, the bridge would be a new element in the Mission Street corridor, but would not directly block views of the Bay. From longer range locations, existing views of Yerba Buena Island and the Bay could be intermittently blocked by the pedestrian bridge, depending upon the location of viewers (pedestrians or riders in vehicles)

along Mission Street. The project would be visible from other locations, such as Fifth Street. The 138-foot-tall retail base and 280-foot hotel tower would be seen from Fifth Street and Jessie Street West, and would replace views of existing Jessie Street and other buildings on the Emporium Site. From Fourth Street near Jessie, the project would be visible; views would be limited by the 16-story 22 Fourth Street building in the foreground.

The project would also be visible from longer-range viewpoints, such as Twin Peaks or Potrero Hill, as part of overall views of downtown. The project would not be a prominent skyline building as it would fit within the skyline of existing downtown development.

Hotel Variant 2

Hotel Variant 2 would be about 20 feet higher at its highest point, compared to Variant 1. Along the south side of the project on Mission Street, Variant 2 would have setbacks from east to west in hotel floors. Those setbacks would decrease the massing of Variant 2 as seen from the east and south. The greater overall height of Variant 2 would increase the visibility of the proposed hotel tower from some nearby areas. Visual simulations of Hotel Variant 2 are shown in Figures 15C, 16C, and 17C, pp. 91, 93, and 95, respectively.

Figure 15C illustrates the visibility of the greater number of hotel floors seen from north of Market Street with Variant 2. About six floors would be visible, compared to about four floors with Variant 1. Figure 16C illustrates the hotel floor setbacks as seen looking west on Mission Street. Figure 17C shows the greater height of Variant 2 as seen looking east on Mission Street. From the southeast corner of the upper terrace at the south end of Yerba Buena Gardens near Howard and Third Streets, the upper stories of the hotel tower (either Variant 1 or 2) would be visible above the roofline of the Sony Metreon complex.

Conclusions

Neither Variant 1 nor Variant 2 would substantially change or obstruct views of the Emporium Building from Market Street; the Market Street facade would be retained and rehabilitated. The raised and restored dome would be visible from some locations near Market Street. While the Emporium dome is not visible from the street in the building's current configuration, this change would not be considered a significant adverse visual effect. The visibility of upper floors of the hotel tower from Market Street would also not be considered a significant adverse effect. From locations on Mission Street near the site, the full height of the project would be visible, a noticeable change from existing scale of development on that portion of the Emporium Site. The new 280- to 300-foot building would be of similar scale as other development in downtown and in Yerba Buena Center, such as the 360-foot Marriott Hotel, the under-construction Four Seasons Hotel on Market Street, and the Sony Metreon on Fourth Street. The project would not obstruct major views from public open space such as Hallidie Plaza or Yerba Buena Gardens. The proposed pedestrian bridge across Mission Street to the Fifth and Mission Garage would block some views of Yerba Buena Island to the east or Twin Peaks to the west for pedestrians or vehicle riders. This effect would be intermittent, depending upon the location of the pedestrian or vehicle, and would be not considered a significant effect. The bridge would be a new element in the Mission Street corridor, enclosed with glass windows rather than solid walls. Night lighting on the bridge for safety and visibility would be expected to be similar to typical building lighting and would not cause substantial light and glare. Overall, the project would not have significant adverse effects on urban design and visual quality.

D. SHADOW AND WIND

SHADOW

SETTING

The existing buildings on the Project Site cast shadows on streets and sidewalks in the project vicinity, as shown in Figures 19, 20, 21 and 22, pp. 103, 104, 105 and 106, respectively.

IMPACTS

Significance Criteria

City Planning Code Section 295, adopted in 1984 pursuant to voter approval of Proposition K, prohibits the issuance of building permits for structures that would shade property under the jurisdiction of, or designated to be acquired by, the Recreation and Park Commission unless the City Planning Commission, in consultation with the General Manager of the Recreation and Park Commission, determines that the shade would not have a significant impact on the use of such property. Hallidie Plaza, north of the Project Site, is owned by the Department of Real Estate. Yerba Buena Gardens, east of the Project Site, is within the Yerba Buena Redevelopment Area and is maintained by the Moscone Convention Center. Neither of these open space areas is in Recreation and Park Department jurisdiction. The nearest open space area owned by, or under the jurisdiction of, the Recreation and Park Department is Union Square, about three blocks north of the site.

In addition, Section 147 of the City Planning Code states that any new development in the C-3 districts should be shaped, consistent with the dictates of good design and without unduly restricting the development potential of the site in question, to reduce substantial shadow impacts on public plazas and publicly accessible spaces. Factors to be taken into account in the determination of shadow impacts include the amount of open area shadowed, the duration

of the shadow, and the importance of sunlight to the utility of the type of open space being shadowed.

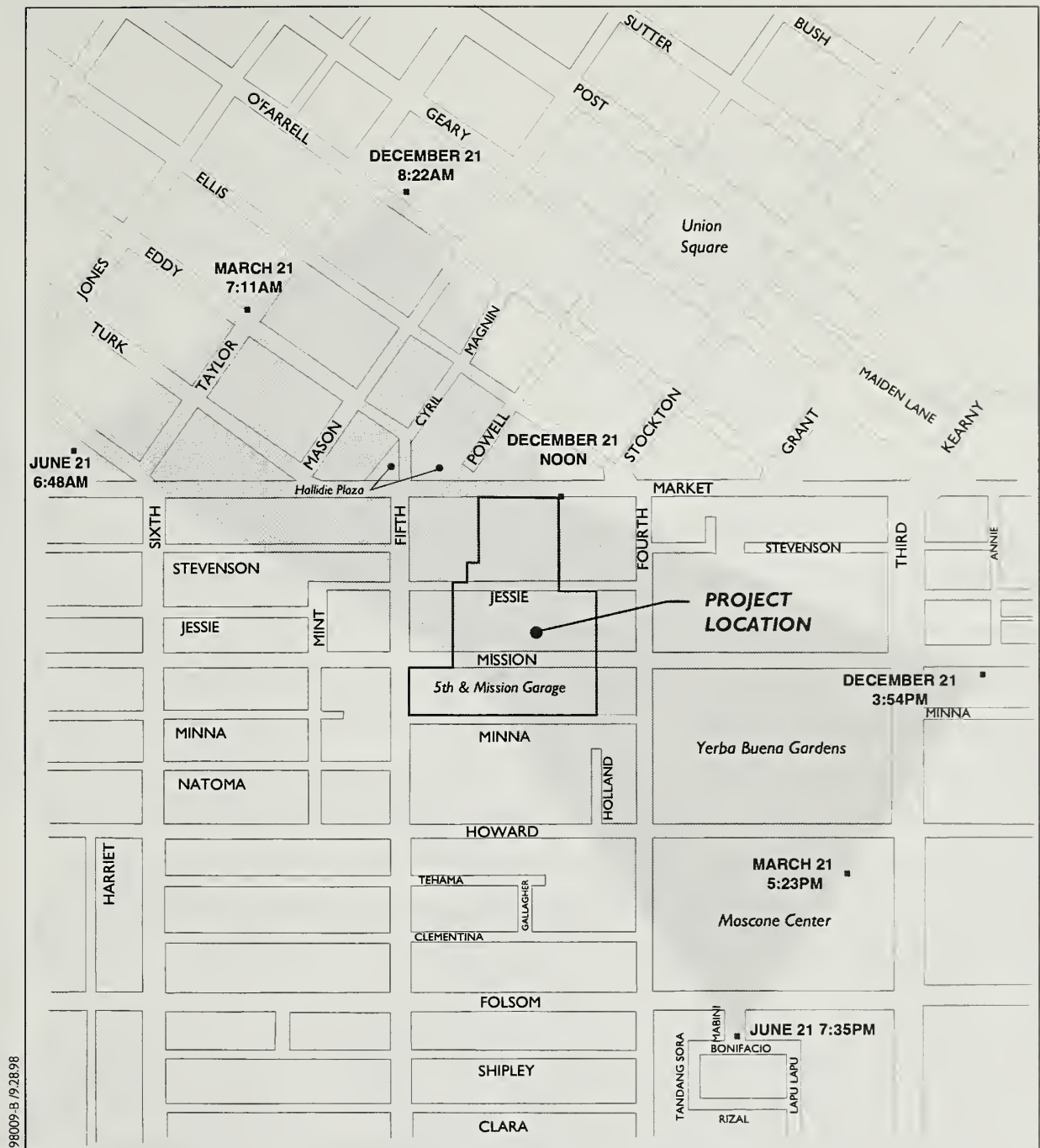
As discussed in Section III.A, Land Use, Plans and Zoning, p. 47, the project is proposed to be included in the Yerba Buena Redevelopment Area, and as such, would not be subject to Sections 147 or 295 of the Planning Code. Nonetheless, these Code sections are generally used to determine the significance of shadow effects.

Existing Open Space

As shown in Figure 18, existing open space areas in the vicinity of the site include Hallidie Plaza, Union Square and Yerba Buena Gardens. Hallidie Plaza is located on either side of Cyril Magnin Street (Fifth Street North) at Market. Most of Hallidie Plaza is a below-street open court serving as an entrance to the Powell Street BART and MUNI station; the eastern portion is the Powell Street Cable Car turn-around. The first block of Powell Street between the terminal and Ellis Street is a transit mall closed to private vehicles. Union Square is bounded by Powell, Post, Stockton and Geary Streets. Yerba Buena Gardens, within the Yerba Buena Redevelopment Project Area, is open space in the Mission-Third-Howard-Fourth Streets block, bounded by the Yerba Buena Center for the Arts on the east, the Moscone Center entrance structure on the south, and the under-construction Sony Metreon on the west.

Shadow on Open Space

Figure 18 shows the maximum extent of the project shadow, for both hotel tower variants, as though cast on the ground without existing intervening buildings. The project would not shade Union Square, the nearest open space in Recreation and Park Department jurisdiction, at any time. Open space areas that would theoretically be affected by the project under this



SOURCE: CADP Associates



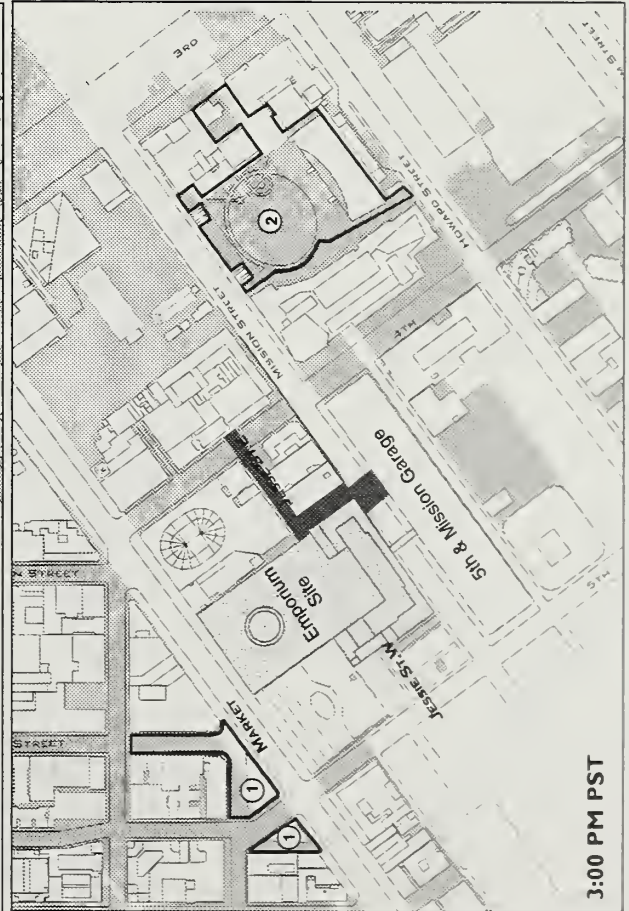
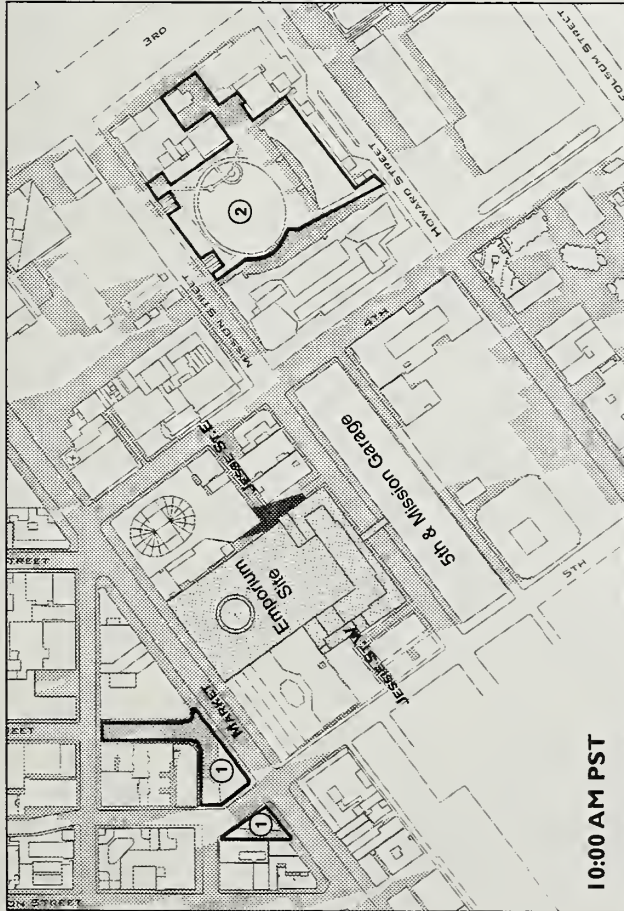
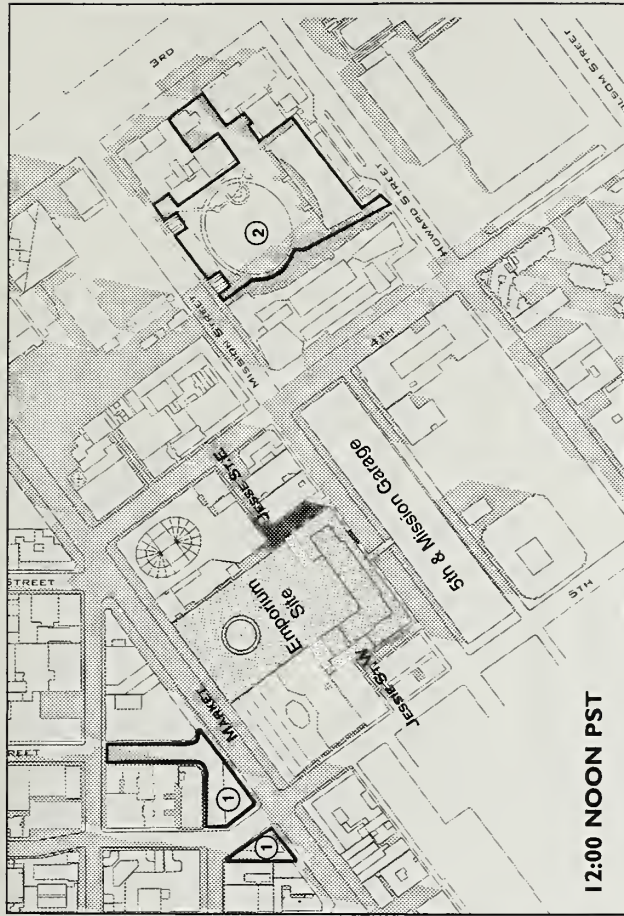
YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 18 PROPOSED PROJECT YEAR-ROUND SHADOW TRACE

assumption would include the Hallidie Plaza and Yerba Buena Gardens. Because of existing buildings near those open spaces, and as discussed below, the project would not add shade to Hallidie Plaza or Yerba Buena Gardens at any time. Overall, the project would not add significant shadow to any open space area in the vicinity.

Shadow Effects

Shadow patterns for existing, proposed, and approved buildings in the project area (including existing buildings on site) and the project are shown for representative times of the day during the four seasons: during winter and summer solstices, when the sun is at its lowest and highest, and during spring and fall equinoxes, when the sun is at its midpoint. Shadow conditions from July through December mirror conditions from January through June (notwithstanding daylight saving time). The times selected for analysis include 10:00 a.m., 12:00 p.m., and 3:00 p.m. Pacific Standard Time (PST) in March and December, and Pacific Daylight Time (PDT) in June and September. The analysis includes shadow cast on streets, sidewalks, pedestrian areas, and open space in the area of potential project impact. The diagrams show existing and approved building shadow and, in darker shading, net new shade resulting from the project.¹

The analysis below addresses shadow cast on streets, sidewalks, pedestrian areas, and open space in the area potentially affected by the project. By convention, "east" and "west" refer to the directions of Market and Mission Streets and parallel streets. "North" and "south" refer to the directions of Fourth and Fifth Streets and parallel streets. As shown in Figure 19, true north is about 45 degrees counter-clockwise from the Fourth Street alignment. Figures 19, 20, 21, and 22 show shadow conditions for Hotel Variant 1, referred to as the project, for December, March, June, and September. Shadow effects for Hotel Variant 2, where different from those with Hotel Variant 1, are discussed separately below.



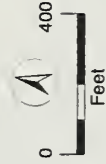
December 21

Net New Shadows

Existing Shadows

① Hallidie Plaza/Cable Car Turnaround

② Yerba Buena Gardens

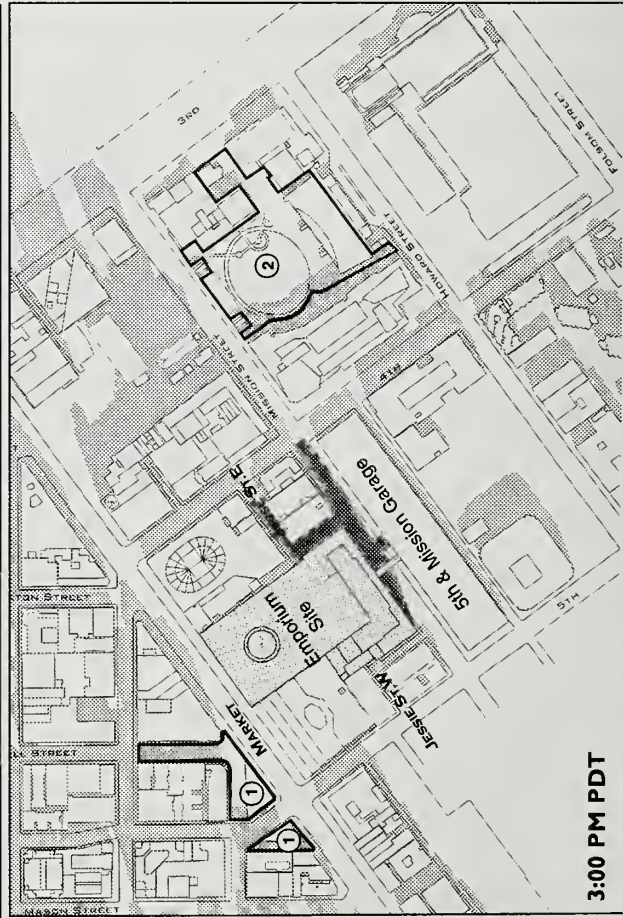
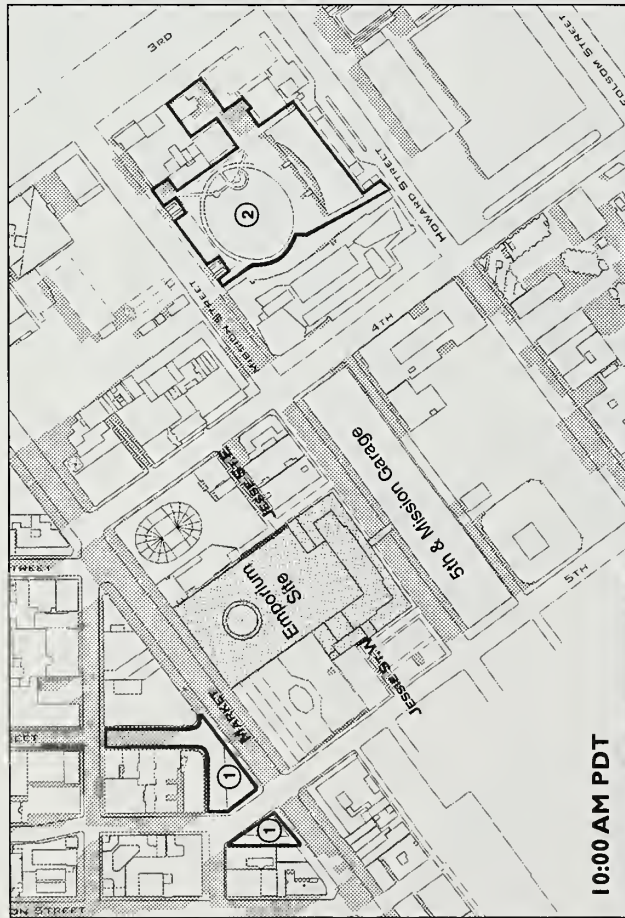
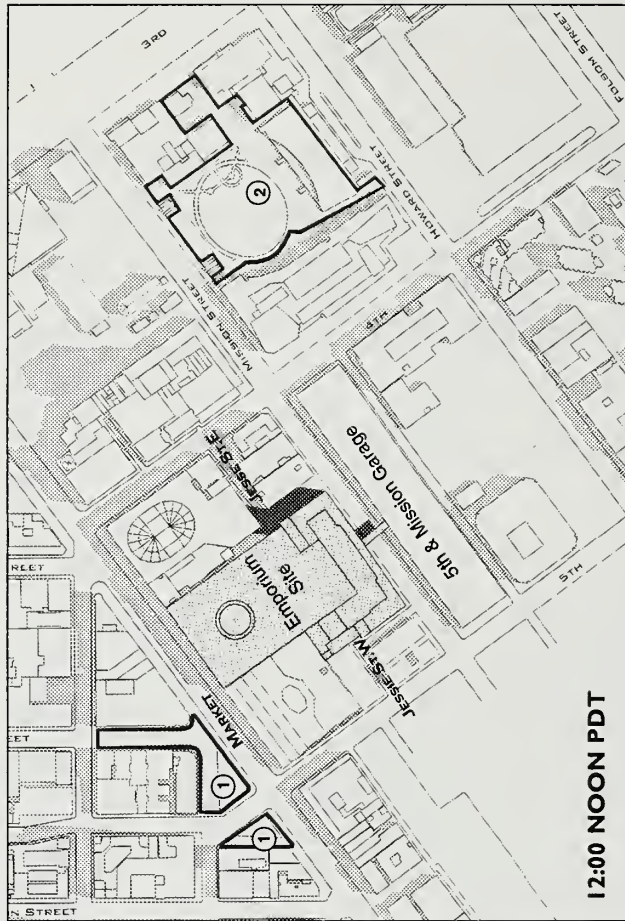


YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT

FIGURE 19 HOTEL VARIANT 1 - SHADOW PATTERNS - DECEMBER 21 (10 A.M., NOON, 3 P.M. PST)

SOURCE: CADD, Inc.

EIP



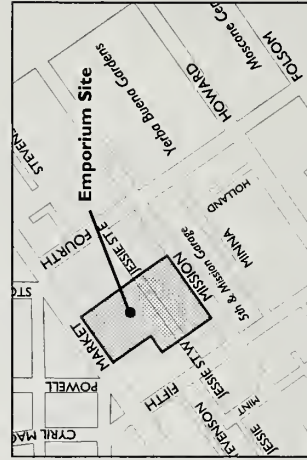
March 21

Net New Shadows

Existing Shadows

① Hallidie Plaza/Cable Car Turnaround

② Yerba Buena Gardens

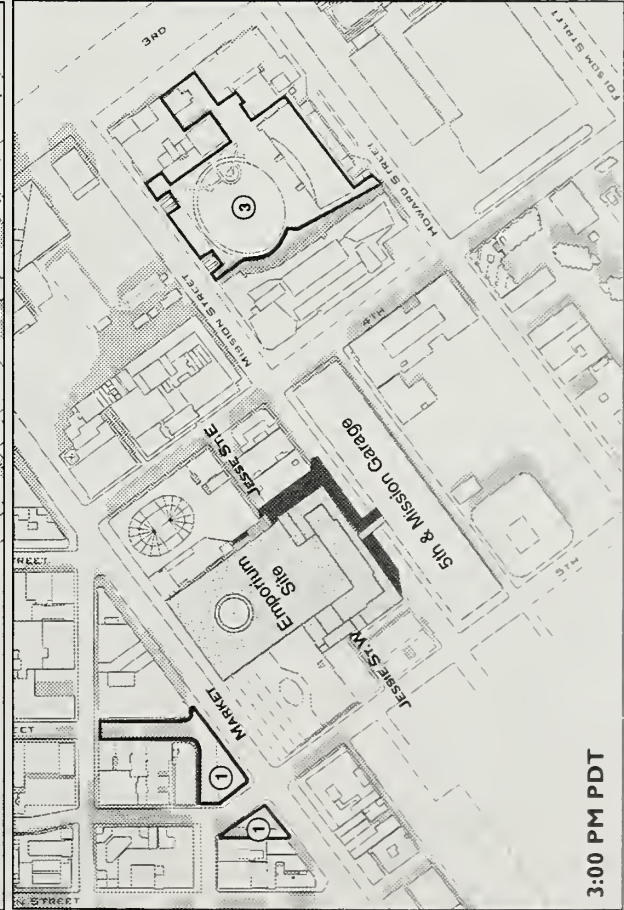
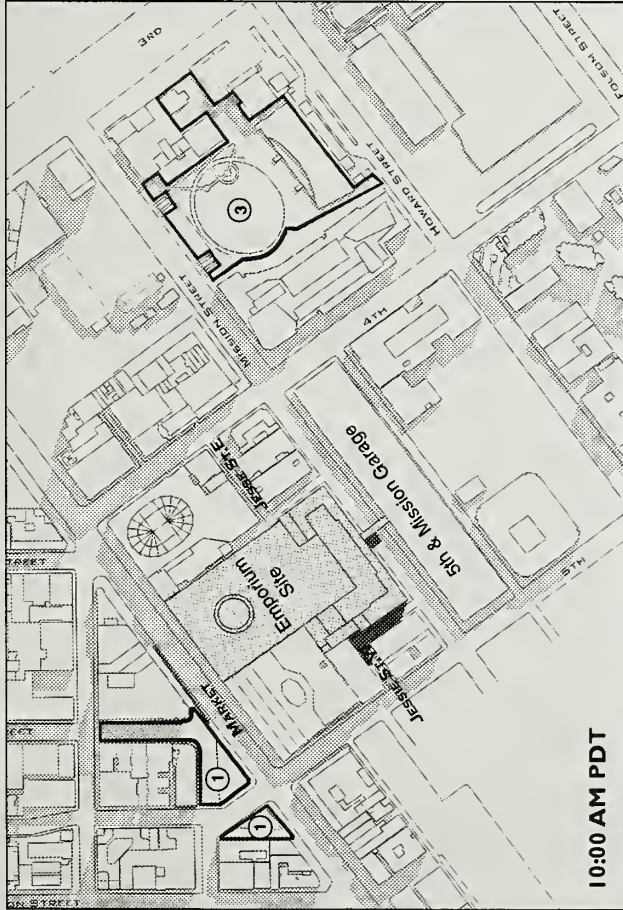
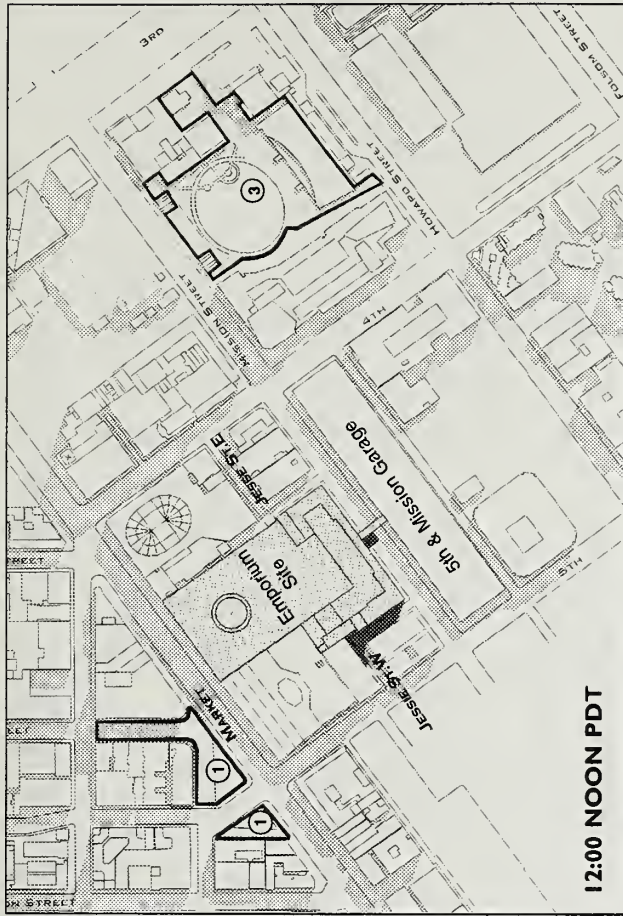


YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT

FIGURE 20 HOTEL VARIANT 1 - SHADOW PATTERNS - MARCH 21 (10 A.M., NOON, 3 P.M. PDT)

SOURCE: CADR, Inc.

ERP



June 21

Net New Shadows

Existing Shadows

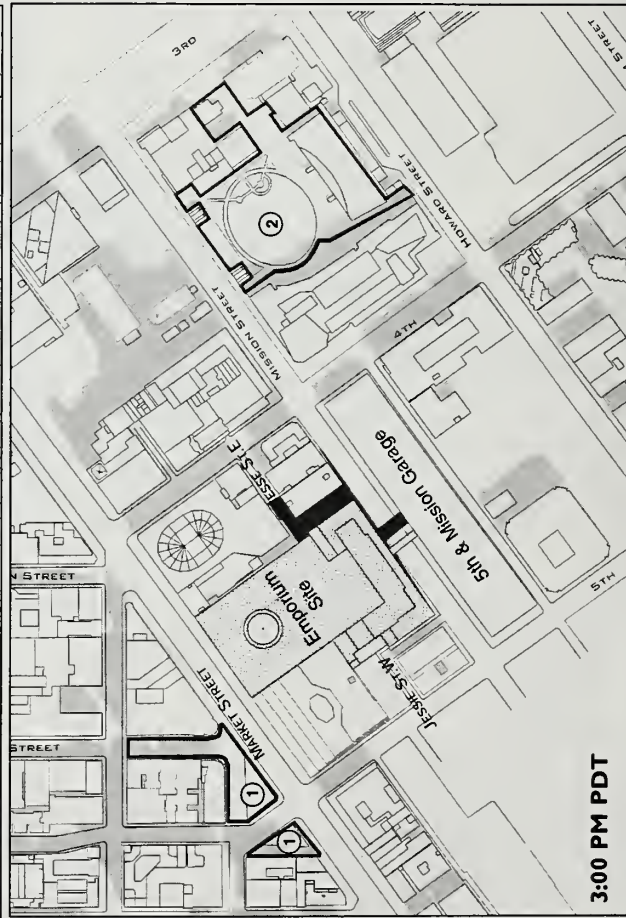
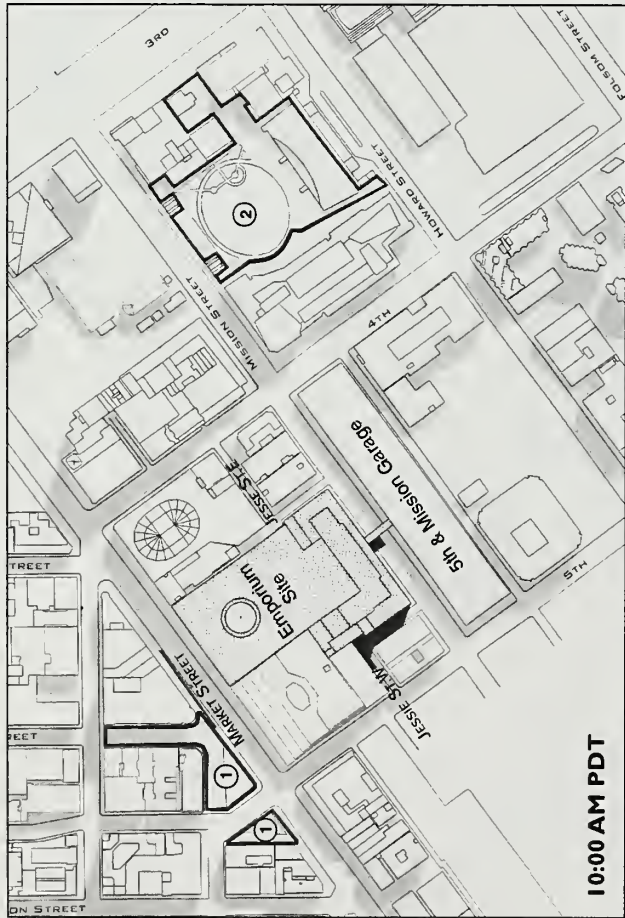
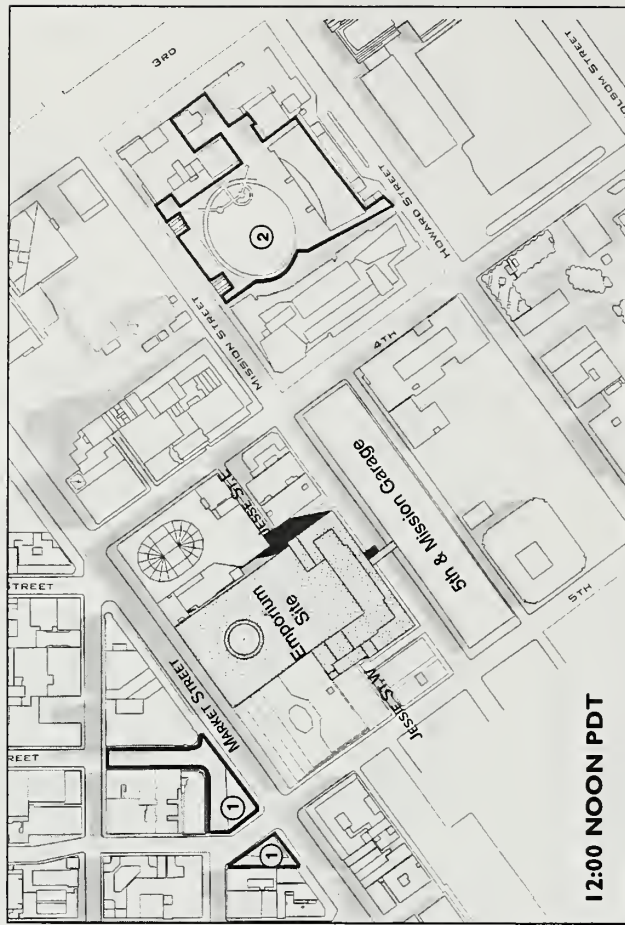
① Hallidie Plaza/Cable Car Turnaround

③ Yerba Buena Gardens



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT

FIGURE 21 HOTEL VARIANT 1 - SHADOW PATTERNS - JUNE 21 (10 A.M., NOON, 3 P.M. PDT)



September 21

Net New Shadows

Existing Shadows

① Halidie Plaza/Cable Car Turnaround

② Yerba Buena Gardens



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 22 HOTEL VARIANT 1 - SHADOW PATTERNS - SEPTEMBER 21 (10 A.M., NOON, 3 P.M. PDT)

SOURCE CADP Inc.

EIP

Hotel Variant 1—December 21

At 10:00 a.m. PST on December 21, new shadow would cover the realigned portion of Jessie Street (Jessie Street East), to the east of the Emporium Site, and the rear service alley of the Pacific Center building adjacent to the proposed project (see Figure 19, p. 103). New shadow would cover an area up to 220 feet along Jessie Street East and the service alley, including 70 feet of the western sidewalk along Jessie Street East; the eastern corner of the sidewalk at the turn of Jessie Street East; 80 feet of Jessie Street East; and 100 feet of the rear service alley of the 833 Market Street building. The project would not shade Hallidie Plaza to the north or Yerba Buena Gardens to the east at 10:00 a.m.

At noon, new shadow from the project would extend across Jessie Street East almost to its intersection with Mission Street (see Figure 19). New shadow would cover about 180 linear feet of sidewalk on each side of Jessie Street East. The proposed pedestrian bridge to the Fifth and Mission Garage would newly shade about 50 feet of the north sidewalk of Mission Street. The project would not shade Hallidie Plaza or Yerba Buena Gardens at noon.

At 3:00 p.m., the project would newly shade Jessie Street East, and about 350 feet east down existing Jessie Street and its southern sidewalk. The shade would cross Fourth Street and 30 feet of the sidewalk in front of the Marriott Hotel. The project would not shade Hallidie Plaza or Yerba Buena Gardens at 3:00 p.m.

Hotel Tower Variant 1—March 21

At 10:00 a.m. PST on March 21, the project would newly shade an approximately 10-foot-wide strip of the service alley of the 833 Market Street building (see Figure 20, p. 104). The project would not shade Hallidie Plaza or Yerba Buena Gardens at 10:00 a.m.

At noon, new shadow would cover an area up to 180 linear feet along Jessie Street East and the service alley, including 150 linear feet of the western sidewalk along Jessie Street East;

the eastern corner of the sidewalk at the turn of Jessie Street East (see Figure 20). The proposed pedestrian bridge to the Fifth and Mission Garage would newly shade about 30 feet of the north sidewalk on Mission Street and an area in Mission Street itself. The project would not shade Hallidie Plaza or Yerba Buena Gardens at 12:00 p.m.

At 3:00 p.m., the project shadow would newly shade Jessie Street East and its sidewalks and reach Mission Street to Fourth Street (see Figure 20, p. 104). New shade would reach across Mission Street, for up to 640 linear feet, and the north sidewalk, to Fourth street. The pedestrian bridge would shade about 40 linear feet of the south sidewalk of Mission Street, adjacent to the Fifth and Mission Garage. The project would not shade Hallidie Plaza or Yerba Buena Gardens at 3:00 p.m.

Hotel Variant 1—June 21

At 10:00 a.m. PDT on June 21, new shadow would cover 150 linear feet of Jessie Street West, and 50 feet of the north sidewalk of existing Jessie Street West (see Figure 21, p. 105). The project would shade an approximately 3-foot-wide, 260-foot-long area on the north sidewalk of Market Street. The proposed pedestrian bridge would shade about 30 linear feet of the north sidewalk of Mission Street. The project would not shade Hallidie Plaza or Yerba Buena Gardens at 10:00 a.m.

At noon, the project shadow would cover a small portion of Jessie Street West adjacent to the project loading area (see Figure 21). New shadow in Market Street would be approximately 1 foot wide and 270 feet long. The project would not shade Hallidie Plaza or Yerba Buena Gardens at noon. At 3:00 p.m., the project would newly shade a portion of Jessie Street East and about 440 linear feet of Mission Street and its north sidewalk. The proposed pedestrian bridge would shade about 30 linear feet of the south sidewalk of Mission Street, adjacent to the Fifth and Mission Garage. The project would not shade Hallidie Plaza or Yerba Buena Gardens at 3:00 p.m.

Hotel Variant 1—September 21

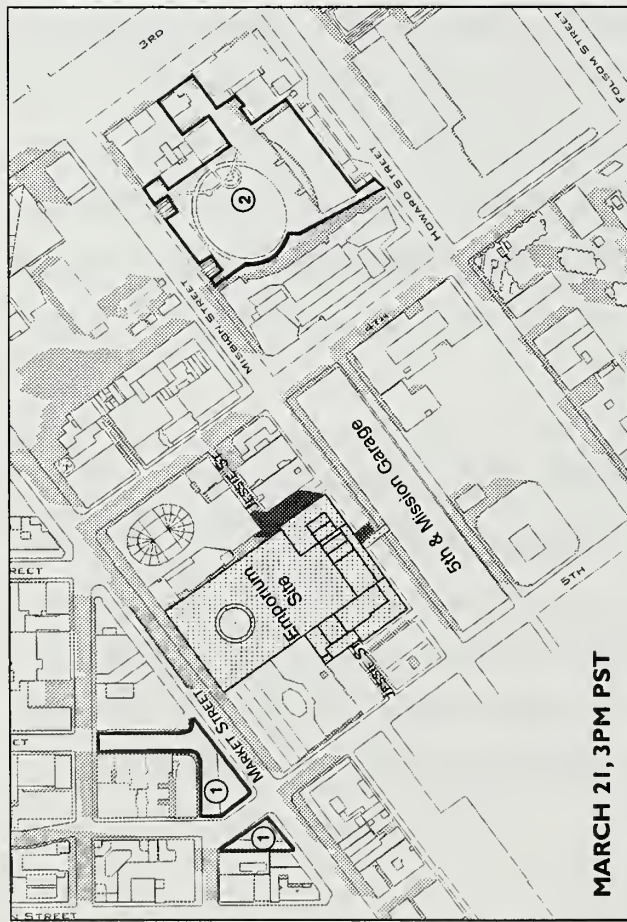
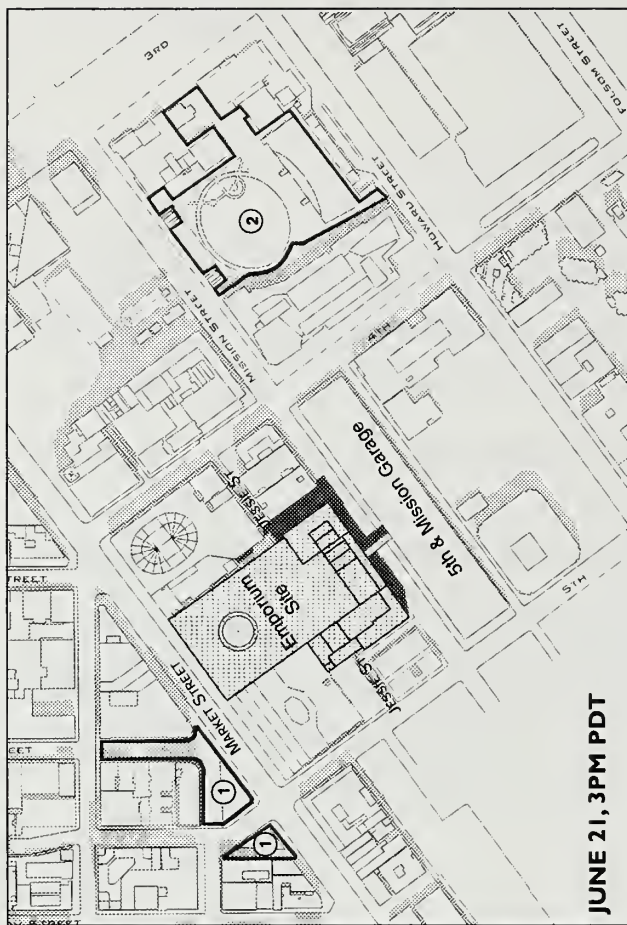
At 10 a.m. PDT on September 21, the project would newly shade an area up to 190 linear feet along Jessie Street West, including 150 feet of the eastern sidewalk and the turn of Jessie Street West (see Figure 22, p. 106). The project would not shade Hallidie Plaza or Yerba Buena Gardens at 10:00 a.m.

At noon, new shadow would cover 150 linear feet of the western sidewalk along Jessie Street West and 180 linear feet of the Jessie Street West roadway (see Figure 22). The project would shade an approximate 2-foot-wide, 270-foot long area of the north sidewalk of Market Street. The proposed pedestrian bridge would shade about 20 linear feet of the north sidewalk of Mission Street. The project would not shade Hallidie Plaza or Yerba Buena Gardens at 12:00 p.m.

At 3:00 p.m., the project would newly shade Jessie Street West, about 75 linear feet of existing Jessie Street west of the Emporium Site and about 150 linear feet of the north sidewalk of Mission Street east towards Fourth Street (see Figure 22). The proposed pedestrian bridge would shade about 40 linear feet of the south sidewalk of Mission Street. The project would not shade Hallidie Plaza or Yerba Buena Gardens at 10:00 a.m.

Hotel Variant 2

Hotel Variant 1 and Hotel Variant 2 would have similar shadow effects at most of the times illustrated and discussed above. The setback tower design with Hotel Variant 2 would have different shadow effects on March 21 and June 21. At 3:00 p.m. on March 21, Hotel Variant 1 would shade about 550 linear feet of Mission Street, compared to 640 feet with Variant 2 (see Figure 23). At 3:00 p.m. on June 21, Hotel Variant 2 would shade about 420 linear feet on the north side of Mission Street, compared to about 440 linear feet with Variant 1 (see Figure 23).



SOURCE: CADP, Inc.

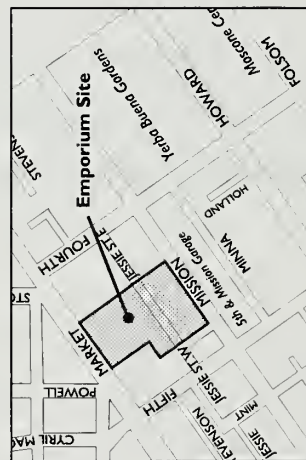
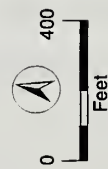
March 21, June 21

Net New Shadows

Existing Shadows

① Halidie Plaza/Cable Car Turnaround

② Yerba Buena Gardens



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT

FIGURE 23 HOTEL VARIANT 2 - SHADOW PATTERNS - MARCH 21-3 P.M. (PST); JUNE 21-3 P.M. (PDT)

WIND

SETTING

U.S. Weather Bureau and Bay Area Air Quality Management District data show that westerly (i.e., from the west) to northwesterly winds are the most frequent and strongest winds during all seasons in San Francisco.² Of the 16 primary wind directions measured at a Weather Bureau Station at the United Nations Plaza (at a height of 132 feet), four directions occur most frequently and account for most of the strongest winds: northwest, west-northwest, west, and west-southwest. Calm conditions occur about 2% of the time.

Average wind speeds are highest during summer and lowest during winter. The strongest peak winds, however, occur during winter, when speeds of up to 47 miles per hour have been recorded.³ Typically the highest wind speeds occur during the mid-afternoon hours, and the lowest occur during early morning hours.

Pedestrian Comfort Criteria

Wind conditions affect pedestrian comfort on sidewalks and in other public areas. The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to 4 miles per hour have no noticeable effect on pedestrian comfort. With winds from 4 to 8 miles per hour, wind is felt on the face. Winds from 8 to 13 miles per hour disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. Winds from 13 to 19 miles per hour raise loose paper, dust, and dry soil, and disarrange hair. The force of winds from 19 to 26 miles per hour is felt on the body. With 26 to 34 miles per hour winds, umbrellas are used with difficulty, hair is blown straight, walking steadily is difficult, and wind noise is unpleasant. Winds over 34 miles per hour make it difficult to maintain one's balance, and gusts can blow a person over.

Large buildings can redirect wind flows around and down to street level, resulting in increased wind speed and turbulence at street level. To provide a comfortable wind environment for San Franciscans, the City established specific comfort criteria for evaluation of proposed buildings. The Planning Code specifically outlines these criteria for the Downtown Commercial (C-3) Districts and for the Rincon Hill area, Van Ness Avenue area, and part of the South of Market Area.⁴ A portion of the Project Site (the retail/entertainment/hotel portion) is part of the C-3-R District (Downtown Retail), and the site is proposed to be included in the Yerba Buena Center Redevelopment Plan Area. Measures adopted as part of Yerba Buena plans include requiring developers of high-rise structures to conduct a microclimate analysis, including wind-tunnel studies, to determine design-specific impacts on pedestrian comfort and to provide a basis for design modifications to mitigate these impacts if significant. Absent inclusion in the Redevelopment Project Area boundaries, the site would be subject to the wind criteria in Section 148 of the Planning Code. This EIR reviews wind impacts of the proposed project against the Planning Code Section 148 pedestrian comfort and hazard criteria.

The comfort criteria are based on pedestrian level wind speeds that include the effects of turbulence. These adjusted wind speeds are referred to as "equivalent wind speeds." Section 148 of the Planning Code established an equivalent wind speed of 7 miles per hour in seating areas and 11 miles per hour in areas of substantial pedestrian use as comfort criteria. New building and additions to building may not cause ground-level winds to exceed these levels more than 10% of the time year round between 7:00 a.m. and 6:00 p.m.⁵ If existing wind speeds exceed the comfort level, new buildings and additions may reduce ambient wind speeds to meet these requirements, unless certain requirements are met for an allowable exception as described in Section 148. As described below under Impacts, the pedestrian comfort criterion is currently exceeded at 12 of 32 test locations for existing conditions. Of the 30 sidewalk locations, 10 are currently exceeded and both of the Fifth and Mission garage rooftop locations are exceeded.

Wind Hazard Criteria

Section 148 of the Planning Code also establishes as a hazard criterion an equivalent wind speed of 26 miles per hour for a single full hour per year. No building or addition would be permitted that would cause wind speeds to exceed the hazard level of more than one hour of any year. As described below, the hazard criterion is not now exceeded at any of the 32 test locations.

IMPACTS

Significance Criteria

As noted, the Planning Code contains wind comfort and hazard criteria (Section 148 and other sections, noted above). The project is discussed in relation to both criteria. A project that would cause exceedences of the comfort standards would not be considered to have a significant impact. The hazard criterion is the significance threshold. A project that would cause equivalent wind speeds to reach or exceed 26 miles per hour for a single full hour of the year therefore would have a significant impact.

The project, if incorporated by amendments into the Yerba Buena Redevelopment Project Area as proposed, would be under San Francisco Redevelopment Agency jurisdiction and not regulated by the wind criteria of Section 148 of the City Planning Code. However, as discussed above, the effects of the project are evaluated with respect to these criteria.

Methodology

Using a wind tunnel and a scale model of the downtown San Francisco area surrounding the Project Site, wind speed measurements were made at 32 test locations, 30 at street level locations and two on the top level of the Fifth and Mission Garage.⁶ Tests were conducted for the Project Site in a base-case, with the proposed Hotel Variant 1, and with the proposed

Hotel Variant 2. The test report is included in Appendix B of the EIR. The base-case conditions included existing conditions on the Project Site, with approved or under construction buildings in the project vicinity, principally the approved Moscone Center Expansions, in the Minna-Fourth-Howard-Fifth Street block, and the under construction Sony Metreon, on the east side of Fourth Street, between Mission and Howard Streets. A reduced Development Alternative was also tested, as discussed in Chapter VI , Alternatives. The wind tunnel tests followed Planning Code Section 148 methodology, adjusted to account for the wind speed profile at the Project Site on Mission Street. Appendix B presents the wind tunnel test methodology and results. Wind speeds do not exceed 26 mph for more than one hour per year under base-case conditions. With both Variant 1 and Variant 2, wind speeds would exceed 26 mph for more than one hour on the roof of the Fifth and Mission Garage (measurement location 31 as shown in Figure 1 of Appendix B).

Table 2 in Appendix B lists wind speeds that would be exceeded 10% of the time. These are points that would exceed the pedestrian comfort criteria. Because all of the test locations studied represent sidewalk or rooftop locations, the 11-mile-per-hour pedestrian comfort criterion is pertinent.

In the base-case, wind speeds range from 6 to 18 miles per hour at the 32 locations tested, 12 of which currently exceed the 11-mile-per-hour pedestrian comfort criterion. The locations where the comfort criterion is currently exceeded on sidewalks are along Market Street adjacent to the project, along Jessie Street at Mission Street, along Fourth Street between Jessie and Mission Streets, and along Fifth Street between Mission and Jessie Streets. The comfort criterion also is exceeded on two locations the roof of the Fifth and Mission Garage. There were no exceedances of the hazardous winds criteria with the base case.

Hotel Variant 1

Hotel Variant 1 would result in wind speeds ranging from 7 to 19 miles per hour, a range similar to existing conditions. With this variant, 13 of 32 test locations would exceed the comfort criterion. In 10 cases, the locations where the comfort criterion is exceeded under existing conditions would continue to exceed the criterion after project construction. Three additional locations that currently meet the criterion would exceed the criterion.

At two sidewalk locations that currently exceed the comfort criterion (Jessie Street East near Fourth Street and the southwest corner of Mission and Fourth Streets), the comfort criterion would be met with Hotel Variant 1.

The greatest changes in wind speeds on sidewalks would be increases from 9 to 12 miles per hour on the southwest corner of Market and Fourth Street, from 7 to 15 miles per hour and from 7 to 17 miles per hour on Mission Street about 250 to 300 feet east of Fifth Street. Wind speeds on the roof of the Fifth and Mission Garage near Fifth Street would increase from 17 to 19 miles per hour.

Hotel Variant 2

Hotel Variant 2 would result in wind speeds ranging from 7 to 19 miles per hour, a range similar to base-case conditions and to Hotel Variant 1. With Hotel Variant 2, 12 of 32 test locations would exceed the comfort criterion. In 10 cases, the locations where the comfort criterion is exceeded under existing conditions would continue to exceed the criterion after project construction. Two additional locations that currently meet the criterion would exceed the criterion.

At two sidewalk locations that currently exceed the comfort criterion (Jessie Street East near Fourth Street and the southwest corner of Mission and Fourth Streets), the comfort criterion would be met with Hotel Variant 2.

The greatest changes in wind speeds on sidewalks would be increases from 7 to 15 miles per hour and from 7 to 17 miles per hour on Mission Street about 250 to 300 feet east of Fifth Street, and from 8 to 11 miles per hour on Jessie Street East about 200 feet east of Fourth Street. Other sidewalk increases above the comfort criterion would be from 13 to 14 miles per hour on the northeast corner of Fourth and Mission Streets, and from 13 to 15 miles per hour on Fourth Street near Jessie Street East. Note that on the roof of the Fifth and Mission Garage near Fifth Street, winds would increase from 17 to 19 miles per hour.

Hazardous Winds Conditions

With the proposed Emporium Site development, the predicted frequency of winds that would exceed 26 miles per hour on the roof of the Fifth and Mission Garage near Fifth Street is 2.0 days per year with Variant 1 and 1.5 days per year with Variant 2.

The occurrence of winds exceeding the hazard criterion at one location on the rooftop parking level of the Fifth and Mission garage has previously been identified by wind tunnel tests conducted for the Moscone Center Expansion Project, for existing conditions.⁷ Those "existing conditions" tested for the Moscone Center Expansion wind tunnel test included existing development at the Emporium Site, and no development of the Moscone Center Expansion site south of the Fifth and Mission Garage. If this were considered the base-case for the Emporium Site development wind effects (i.e. with existing conditions on the Moscone Center Expansion Site), the hazardous wind criterion exceedance would be an existing condition. In the Moscone Center Expansion study, the exceedance was eliminated when modeled with the Moscone Center Expansion building. These results are consistent with the tests for the project, where the base-case test, including the Moscone Center Expansion and existing conditions on the Emporium Site, showed no exceedance of the hazardous wind criterion.

Chapter IV, Mitigation Measures, includes a measure to mitigate the effects of these exceedences of the hazardous wind criterion.

NOTES - Shadow and Wind

1. For simplicity of analysis, shadows cast from proposed new construction on the Project Site between Jessie Street and Mission Street assume all new shadow, although some shadow occurs from existing buildings. Thus, actual new shading along Mission Street would be less, and the analysis is conservative.
2. The U.S. Weather Bureau data used in this analysis were gathered at a weather station atop the Old Federal Build at 50 United Nations Plaza during the years 1945 through 1950. During each of these years, data were taken hourly for 16 wind directions. The database, consisting of 32,795 hourly observations, is of sufficient size to provide a reliable estimate of future wind conditions in San Francisco.
3. E. Jan Null, Climate of San Francisco, NOAA Technical Memorandum, *NWS WR-126*, February 1978.
4. Planning Code, Section 148, 249,1(3), 243(c)(9), 263.11(c).
5. The Planning Codes specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data cover the hours of 6:00 a.m. to 8:00 p.m. Therefore, observations from two additional evening hours and one additional morning hour are included in these data.
6. Donald Ballanti, Certified Consulting Metrologist, *Wind Tunnel Analysis for the Proposed Forest City Development*, San Francisco, prepared for EIP Associates, June 1998.
7. Environmental Science Associates, *Technical Memorandum about Potential Wind Conditions for the Proposed Moscone Center Expansion Project Building*, September 15, 1997; and *Technical Memorandum*, October 31, 1997.

E. TRANSPORTATION¹

SETTING

REGIONAL ACCESS

The I-80 freeway provides regional access to the Project Site and vicinity, in the South of Market Area of San Francisco about four blocks south of the site. East Bay access to the site is via I-80 (Bay Bridge) westbound from the Fifth Street at Harrison Street off-ramp, which touches down south of Mission Street; access to I-80 eastbound is via the on-ramps at Fifth Street, Essex Street, Sterling Street and First Street. From the South Bay, access to the site is via the I-80 eastbound Fourth Street off-ramp at Bryant Street; access to I-80 westbound is via the Fourth Street and Harrison Street on-ramps. See Figure 1, Project Location, p. 32. Access to and from the North Bay is via I-80 connecting to U.S. 101 southeast of the Project Site or can be reached using surface streets to Van Ness Avenue (U.S. 101).

LOCAL STREET SYSTEM

The Project Site fronts on both Market Street and Mission Street and occupies parts of the Market-Fourth-Mission-Fifth Streets and the Mission-Fourth-Mission-Fifth Streets blocks. City streets south of and including Market Street are oriented northwest to southeast (e.g., Fourth and Fifth Streets) and northeast to southwest (e.g., Market, Mission and Howard Streets). To simplify the discussion of these streets, the convention of calling northwest-to-southeast streets "north-south" streets and calling northeast-to-southwest streets "east-west" streets has been generally adopted by the City and has been used in this EIR.

Market Street is an east-west direction arterial with two travel lanes in each direction from The Embarcadero to Portola Drive in Twin Peaks. In the project vicinity, Market has 25- to 31-foot-wide sidewalks. Left turns are prohibited from Market Street between Drumm/Main

Streets and Franklin Street. This street is designated as a Transit Preferential Street between Castro Street and Steuart Street in the *San Francisco General Plan* and is heavily used by transit vehicles. Market Street has streetcar tracks running down the center lanes which are designated for transit vehicles only at all times, serving diesel and trolley buses. Market Street is also designated as a part of the Citywide Bicycle Route Network.

Mission Street is a four-lane arterial that runs in an east-west direction between The Embarcadero and South Van Ness Avenue, and continues in a north-south direction west of South Van Ness Avenue. Left turns from Mission Street are generally restricted between South Van Ness Avenue and Main Street eastbound, and between Beale Street and 10th Street westbound. Mission Street has a transit-vehicle diamond lane in each direction enforced during the peak hours. In the *San Francisco General Plan*, Mission Street is designated as a Neighborhood Pedestrian Street, a Transit Preferential Street, and as part of the Citywide Pedestrian Network. In the project vicinity, on-street, metered parking is provided along the north curb (between Fourth and Fifth Streets), but is prohibited during the PM peak period (3:00 to 6:00 PM).

Jessie Street is an east-west alleyway located between Market and Mission Streets. In general, it runs discontinuously between First and Twelfth Streets. Between Fourth and Fifth Streets, Jessie Street is one-way eastbound, with no stopping on the north side of the street and metered parking on the south side of the street. The vehicular portion of the street is approximately 20 feet wide, with 10-foot sidewalks on both sides of the street. Jessie Street provides access to loading docks for the Pickwick Hotel at its west end and for Pacific Center and the Cole Fox Hardware Store at its east end. Jessie Street is classified as a Walkthrough Alley in the *Downtown Streetscape Plan* and as a Pedestrian Oriented/Service Street in the *San Francisco General Plan*.

Fourth Street, within the vicinity of the Project Site, has four travel lanes with 10-foot sidewalks on both sides of the street. Fourth Street forms a one-way (southbound) couplet

with Third Street between Market Street and Townsend Street. South of Townsend Street, Fourth Street begins two-way operations. Fourth Street serves as direct access to the I-80/U.S. 101 westbound on-ramp at Harrison Street. The *San Francisco General Plan* identifies Fourth Street as a Major Arterial, as a Transit Preferential Street, and as a Pedestrian Network Street. On-street parking is generally allowed on both sides of the street, except between 4:00 and 6:00 PM, when the western lane converts to a right-turn lane.

Fifth Street is a two-way north-south roadway between Market Street and Townsend Street. Within the vicinity of the project, Fifth Street has two lanes in each direction and 10-foot sidewalks. Fifth Street serves as direct access to the I-80/U.S. 101 on- and off-ramps at Harrison and Bryant Streets. The *San Francisco General Plan* identifies Fifth Street as a Major Arterial between Market and Bryant Streets and a Citywide Bicycle Route between Market and Townsend Streets. On-street parking is available, although no stopping is permitted between Howard and Mission Streets on the east side of Fifth Street to facilitate ingress to the Fifth and Mission Garage.

INTERSECTION CONDITIONS

Existing traffic conditions were evaluated for the weekday PM peak hour (generally between 4:30 to 5:30 PM) conditions. Intersection turning movement counts were collected at nine signalized study intersections on Tuesday, March 3, 1998, between 4:00 to 6:00 PM. Operating characteristics of intersections are described by the concept of Level of Service (LOS). LOS is a qualitative description of an intersection's performance based on the average delay per vehicle. Intersection Levels of Service range from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays. Typically, LOS E and F represent unacceptable levels of service. A detailed description of LOS is included in Appendix C, Transportation.

Table 4, p. 134, presents the results of the intersection LOS analysis for existing weekday PM peak hour conditions. As the table indicates, the intersection of Fourth and Harrison Streets, at the I-80 westbound on-ramp, currently operates at LOS F. All other study intersections are currently operating at acceptable traffic conditions (LOS D or better) during the weekday PM peak hour.

The exclusive bus lanes on Mission Street affect the vehicular capacity of the street and intersections in the project vicinity. Observations show that non-transit vehicles often use the bus lanes and that there is limited enforcement. Based on these observations, the capacity of the intersections of Mission Street with Fourth and Fifth Streets was adjusted to include some vehicle capacity available in the bus lanes, reflecting existing conditions. If the bus lanes were fully enforced, the intersection of Mission and Fifth Streets would operate at LOS F because of reduced vehicular capacity; the intersection of Mission and Fourth Streets would continue to operate at LOS B, with slightly longer delays, because it was observed that more drivers comply with the bus lane at this intersection.

The existing conditions presented here do not include several nearby projects that are currently under construction; e.g. Pacific Center rehabilitation and conversion, the Metreon Entertainment Complex, and the Millennium Complex. Nor does it take into consideration those projects that have development entitlements but have not begun construction. Those projects are considered in the cumulative analysis for the year 2015.

TRANSIT

The Project Site is readily accessible by public transit, with 24 San Francisco Municipal Railway (MUNI) diesel and electric bus lines providing service within a two-block radius of the project, and MUNI Metro light rail service in the Market Street tunnel. (Figure 24 presents transit routes in the project area.) The closest Metro station is the Powell Street Station, under Market Street directly north of the site. MUNI bus lines currently serving the area include Routes 5-Fulton, 6-Parnassus, 7-Haight, 9-San Bruno, 9AX, 9BX, 9X, 12-

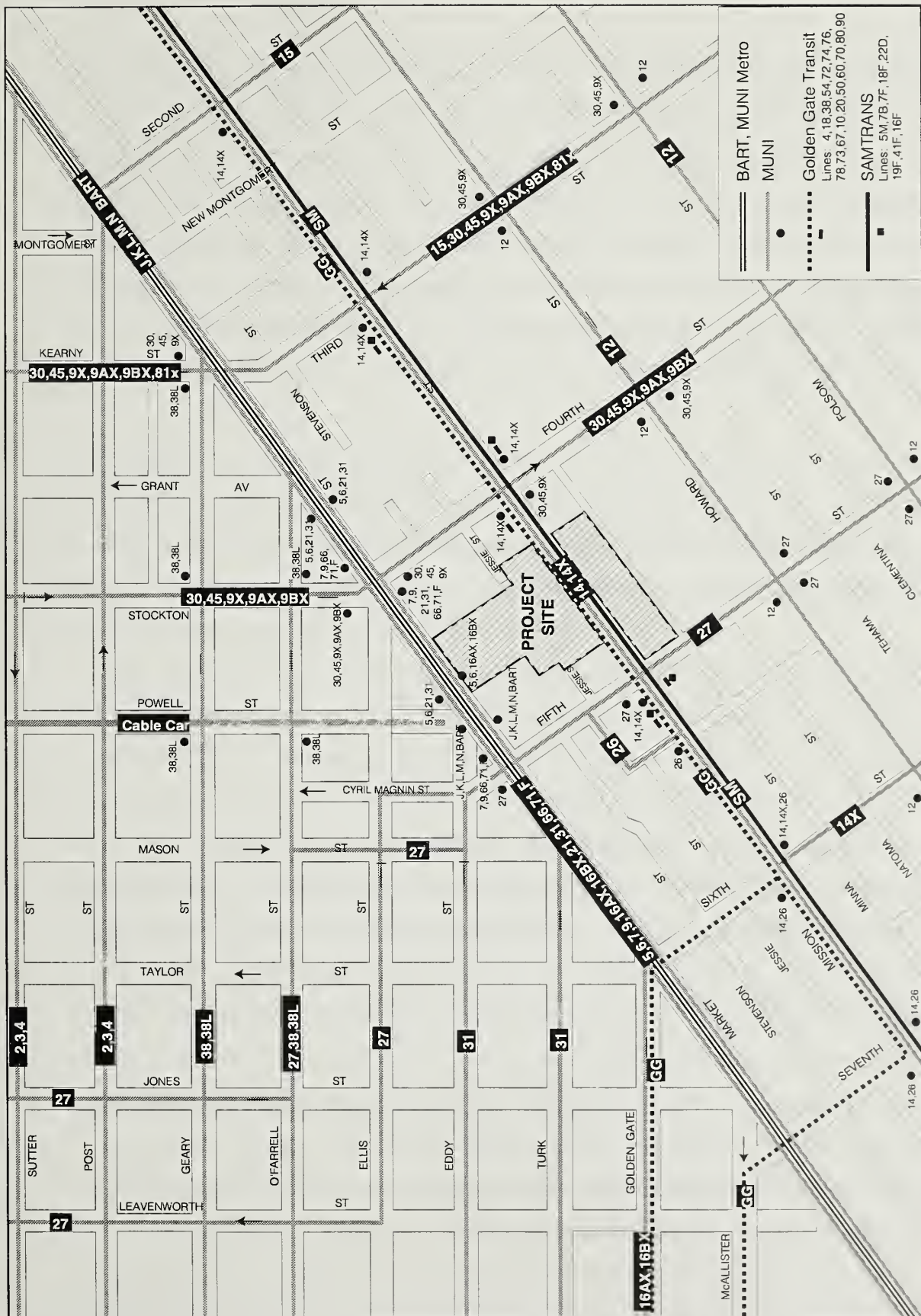


FIGURE 24 EXISTING TRANSIT NETWORK IN THE PROJECT VICINITY

SOURCE: Korte Engineering

Folsom, 14-Mission, 14L, 14X, 15-Third, 16AX and 16BX Noriega Express, 21-Hayes, 26-Valencia, 27-Bryant, 30 Stockton, 31 Balboa, 38-Geary, 38L, 45-Union/Stockton, 66-Quintara, and 71-Haight/Noriega. The F-Market Trolley Line currently runs on Market Street between the Transbay Terminal and Castro Street. MUNI Metro lines in Market Street subway include the J-Church, K-Ingleside, L-Taraval, M-Ocean, and N-Judah. The Powell & Hyde and the Powell & Mason cable car lines begin at the Powell Street Cable Car turnaround across Market Street from the Project Site and serve downtown, Nob Hill, Russian Hill and Fisherman's Wharf.

The Bay Area Rapid Transit District (BART) operates regional rail transit service between the East Bay and San Francisco, and between northern San Mateo County and San Francisco. Within downtown San Francisco, BART operates under Market Street. The nearest BART service is the Powell Street Station.

The Peninsula Commute Service (Caltrain) provides rail passenger service on the Peninsula between Gilroy and San Francisco. The San Francisco terminal is at Fourth and Townsend Streets, six blocks south of the Project Site and is connected to downtown by MUNI service.

SamTrans provides service throughout San Mateo County to downtown San Francisco. Within San Francisco, SamTrans patrons are permitted only to board buses heading outbound from the City and are permitted only to disembark from buses heading inbound to the City. In the vicinity of the Project Site, SamTrans operates nine routes along Mission Street to and from the Transbay Terminal.

AC Transit provides service in western Alameda County and western Contra Costa County, and between these parts of the East Bay and downtown San Francisco. Thirty-seven AC Transit routes serve the Transbay Terminal, about four blocks east of the Project Site; of these, 33 provide service only during commute periods.

Golden Gate Transit serves Marin and Sonoma Counties. In the vicinity of the Project Site along Mission Street, Golden Gate Transit provides seven bus routes throughout the day and 10 during the commute period. Golden Gate Transit also provides ferry service between the North Bay and San Francisco. Golden Gate feeder bus lines operate between the Ferry Building and Civic Center (line #67) and the Financial District (line #69) during the commute hours. During the AM and PM peak periods, ferries are operated between Larkspur and San Francisco and between Sausalito and San Francisco, from the Ferry Building, near Market Street and The Embarcadero, about six blocks east of the Project Site.

PARKING

Existing parking conditions were examined in the area bounded approximately by Post Street to the north, Kearny and Third Streets to the east, Howard Street to the south, and Fifth and Powell Streets to the west.

On-Street Parking

On Market Street, in the Project Site vicinity, parking is prohibited at all times. The north side of Mission Street between Fourth and Fifth Streets has 16 one-hour metered parking spaces and four 30-minute metered loading spaces. On the south side of Mission Street, adjacent to the Fifth & Mission Parking Garage, no parking or stopping is allowed.

Parking is prohibited along the north side of Jessie Street between Fourth and Fifth Streets. The south side of Jessie Street has 12 metered one-hour parking spaces, and six non-metered, non-restricted parking spaces.

On the east side of Fourth Street, between Market and Stevenson Streets, are four parking spaces reserved for taxi loading for the Marriott Hotel. On the west side of Fourth Street, between Market and Mission, are six metered loading spaces, two passenger loading/unloading spaces, one metered parking space, and passenger loading zones in front of

the Victorian Hotel and the Cole Fox Hardware store. During the PM peak period, the west curb is posted No Stopping, and the parking lane becomes a right-turn only lane. Most of the west side of Fourth Street between Market and Jessie Streets, is currently closed due to construction of the Pacific Center, and has been converted to a temporary, covered pedestrian walkway.

On the east side of Fifth Street, between Market and Mission Streets, no on-street parking is available. Passenger loading/unloading zones are provided near Jessie Street in front of the Pickwick and Milano Hotels. On the west side of Fifth Street, between Market and Jessie, are seven metered parking spaces and three loading spaces. No stopping is allowed between Jessie and Mission Streets.

On-street parking conditions were qualitatively assessed during field observations. In general, on-street parking in the project vicinity is comprised of 30-minute and one-hour meters which are typically occupied during mid-day periods, with relatively high turnover. There are also passenger loading and on-street loading spaces in the area.

Off-Street Parking

There are about 7,655 publicly available off-street parking spaces in the study area.² (This inventory does not include private parking spaces that are restricted for use by residents, customers, and employees of private businesses or public agencies.) Off-street parking includes both surface lots and parking structures. The Project Site includes the Fifth and Mission Garage across Mission Street. The Fifth and Mission Garage contains about 2,655 spaces, of which approximately 1,655 are available for short-term parking, and 1,000 are currently leased on a monthly basis. The Fifth and Mission Garage is about 70% occupied in the weekday midday period. When the Garage is combined with all other off-street facilities within the study area, the overall occupancy in March 1998 was estimated to be approximately 80% during the weekday midday period (1:00 - 3:00 PM), with approximately 6,035 occupied and 1,620 unoccupied spaces.

In contrast to the typical parking condition described above, the peak parking demand in the project vicinity occurs during the end-of-year holiday season. During this time, parking in the midday period (especially near the retail and tourist activities in the vicinity of Union Square) becomes nearly fully occupied. In addition, during major events at the Moscone Center, demand for parking in the project vicinity often creates vehicle queues at the entrances of parking facilities that occasionally block through traffic.

PEDESTRIAN CONDITIONS

Weekday PM peak hour pedestrian counts were collected on Wednesday, March 4, 1998 for six crosswalk locations: at the crosswalks at Market-Fourth, Market-Powell, Market-Fifth, Mission-Fourth, Mission-Fifth, and the mid-block crosswalk on Mission between Fourth and Fifth Streets. Pedestrian counts were collected for the sidewalk on the north side of Mission Street between Fourth and Fifth Streets on September 10, 1998. Volumes represent the peak 15 minutes within the PM peak hour (which generally occurs between 4:30 and 5:30 PM). Both crosswalks and sidewalks are evaluated using a "level of service" concept, similar to intersections as discussed above on p. 121. For crosswalk LOS, the calculations take into account width, length, pedestrian signal "green" time, and the number of turning vehicles. Operating conditions are described in terms of average square feet of crosswalk space per pedestrian. For sidewalk LOS, the calculations take into account within the width of the sidewalk any obstructions such as utility poles and street trees, and the service level is based on square feet of effective crosswalk width per pedestrian for crosswalks and on pedestrians per foot of effective sidewalk width per minute for sidewalks. (The "effective sidewalk width," is reduced by street fixtures and furniture which limit effective use by pedestrians.) An upper limit for desirable conditions is LOS D. A detailed description of pedestrian LOS is included in Appendix C, Transportation. All seven study locations currently operate at LOS C or better during the weekday PM peak hour, which indicates that pedestrians are able to move freely, with only minor conflicts.

The level of pedestrian traffic in the vicinity can exceed PM peak hour levels at times during the midday, on weekends, during the holiday season, and when there are major events at Moscone Center. At these times, crosswalks may be overcrowded and turning vehicles may have to wait until the end of the green cycle to complete their turn.

IMPACTS

SIGNIFICANCE CRITERIA

Local Intersections

In San Francisco, a project typically is considered to have a significant effect on the environment if it would cause an intersection to deteriorate to an unacceptable level (from LOS D or better to LOS E or LOS F, or from LOS E to LOS F); interfere with existing transportation systems causing substantial alteration to circulation patterns or causing major traffic hazards; contribute substantially to cumulative traffic increases at intersections that would result in deterioration of traffic conditions to unacceptable levels; or contribute substantially to cumulative traffic increases at intersections already operating at unacceptable levels.

Transit

The City has no formally adopted significance criteria for potential impacts related to transit. In San Francisco, a project typically is considered to have a significant effect on the environment if it would cause a substantial project-specific or cumulative increase in transit demand which cannot be accommodated by existing or proposed transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in operating costs such that significant adverse impacts in transit service levels could result. The project also would have a significant effect on the environment if, when considering cumulative development in

the area, it would contribute substantially to the deterioration of transit service or cause substantial conflict with transit operations.

Parking

The City has a Transit First policy and a level of transit availability that exceeds all other areas in the State. San Francisco's General Plan policies emphasize the importance of public transit use and discourage the provision of facilities which encourage automobile use. For example, drivers that could not find available nearby parking would park farther away or switch travel modes to transit or carpools. Therefore, creation of parking demand which cannot be met by existing or proposed parking facilities would not be considered a significant environmental effect. Data on unmet parking demand is presented for informational purposes and may inform decisions regarding project approval actions. Also, the City would generally consider whether the unmet parking demand would result in other significant physical effects.

Pedestrians

In this transportation category, a project would be considered to have a significant effect on the environment if it were to result in substantial pedestrian overcrowding on public sidewalks or crosswalks creating an unacceptable pedestrian LOS; or create particularly hazardous conditions for pedestrians.

METHODOLOGY

Person-trip generation for the project is based on the transportation study for this EIR³ and uses trip rates obtained from the *Guidelines for Environmental Review: Transportation Impacts (Guidelines)* published by the City and County of San Francisco, Planning Department, July 1991, as well as trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 6th Edition*. Transportation analyses used the *Citywide*

Travel Behavior Survey (CTBS), the Supplemental Tables to the CTBS, and the ITE Trip Generation Manual.

For the purpose of the transportation analysis, it was assumed that the existing Emporium Building generates limited person- and vehicle-trips. Therefore, no deduction of the existing trips was taken to calculate the net new trips generated by the project. That assumption is reasonable, because the current Macy's and Federated Stores employees in the Emporium Buildings will relocate to the Macy's Union Square when renovation of those buildings is complete. Those existing activities will therefore remain in the vicinity.

The person-trip generation was calculated for both the weekday daily and weekday PM peak hour (4:30 to 5:30 PM) time periods. Person-trip generation rates for the combination of retail, restaurant and entertainment uses, except for the theater complex, were based on gross leasable area (not gross square feet) using the *ITE Trip Generation Manual* "shopping center" designation, and mode-split data from the *Citywide Travel Behavior Survey* and its supplemental tables. Gross leasable area is the total floor area for these retail/entertainment uses, reduced by the non-customer areas such as display, storage, and office support areas. Person-trip generation rates for project hotel uses were based on the number of rooms as provided in the *Citywide Travel Behavior Survey*. For the movie theaters, the analysis used trip generation rates developed for another San Francisco multiplex theater project.⁴

The trip generation factors incorporate assumptions that account for visitors to the site who are already in the downtown area for some other purpose. For example, the trip generation factors include the assumption that nearly one-half of the trips to the Project Site began somewhere other than home, accounting for those who visit the site from their downtown workplace. Thus, "linked trips," that is trips that include only one trip into the downtown area but several trips (generally pedestrian trips) within the area, are accounted for. Many persons traveling to the Project Site would make more than one stop within the Project Site, such as someone having dinner and then going to a movie or someone staying at the hotel who chooses to shop in the department store. The overall project trip generation factors used

to calculate the number of daily person trips have not been reduced to account for these "internal trips" between land uses on the site. The resulting daily person trip figure, shown in Table 2, is, to that extent conservative.

The project is estimated to generate a total of approximately 65,600 daily person-trips, of which about 55,600 person trips would be generated by the retail/entertainment uses, about 3,200 by hotel uses, and about 6,800 by theater uses. During the PM peak hour (4:30 to 5:30 PM), the project would generate about 7,200 trips, of which about 5,300 person trips would be generated by retail uses, about 300 by hotel uses, and about 1,600 by theater uses. Table 2 shows the trip generation for the project.

TABLE 2 PROJECT TRIP GENERATION				
Proposed Land Use	Size	Daily Person Trip Rate	Daily Person-Trips	PM Peak Hour Person-Trips
Proposed Project:				
Retail/Entertainment	869,700 sf-gla ^a	63.92 trips per 1,000 sf-gla ^b	55,600	5,315
Hotel	465 rooms	about 6.9 trips per room	3,220	310
Theater	6,000 seats	1.13 trips per seat	<u>6,780</u>	<u>1,560</u>
TOTAL (rounded)			65,600	7,185

- a. sf-gla = square feet-gross leasable area is generally defined as retail/entertainment gross floor area (i.e., total retail/entertainment floor area), discounted for non-customer areas such as display, storage, and office support areas.
b. The retail/entertainment rate is based on the Institute of Transportation Engineers rate for shopping centers.

Source: Korve Engineering

Person trips generated by the project were assigned to travel modes to determine the number of vehicle and transit trips that would be generated by the project (see Table 3). Mode shares were based on information in the *Citywide Travel Behavior Survey* and the *Supplemental Tables to the CTBS*. The project would generate a total of about 1,195 weekday PM peak-hour vehicle trips (assuming varying numbers of persons per vehicle, depending on the type of land use) and about 1,400 transit trips.

For the hotel, over three-fourths of the person-trips would be from outside of San Francisco, with most of these from out of the region. About 80% of the person-trips to the theaters, and about one-third of the trips to the retail/ entertainment uses would be from within San Francisco. An additional approximately 30% of the retail trips would be from the remainder of the Bay Area. Over 60% of employee trips would be travel from within San Francisco.

TABLE 3
PROJECT PEAK-HOUR TRAVEL MODE

Travel Mode	Proposed Project	PM Peak Hour Person-Trips
Auto	29.5%	2,165
Transit	17.4%	1,400
Walk	40.0%	2,810
Other	<u>13.1%</u>	<u>810</u>
TOTAL (rounded)	100%	7,185

Source: Korve Engineering

To assess potential impacts of the project on traffic, transit use and parking, project-generated activities were added to the existing levels. The resulting "existing-plus-project" scenario does not include activities generated by other projects that are under construction or planned for the area surrounding the Project Site. These other projects are included in the analysis of 2015 cumulative conditions, beginning on p. 150. When the proposed project and these other nearby projects are complete and in full operation, transportation conditions would be more congested than "existing-plus-project" conditions, and may be closer to levels projected for 2015 at some locations. The "existing-plus-project" scenario appropriately isolates potential impacts of the project and mitigation is identified for this scenario. Mitigation measures are also identified to reduce project contributions to the 2015 cumulative conditions.

EXISTING PLUS PROJECT CONDITIONS

Traffic Impacts

The intersection analysis assesses potential traffic impacts generated by the addition of project-related traffic to existing conditions. Intersection impacts were evaluated for the weekday PM peak hour conditions with project-generated traffic added to existing traffic volumes. Based on information in the *Citywide Travel Behavior Survey*, approximately 50% of the vehicles traveling to or seeking parking near the Project Site would arrive from south of the site, either from the freeway or from other locations to the south. Most of the rest of the vehicles bound for the project would arrive from the west, some via Mission Street and others destined for parking garages in the Union Square area using streets north of Market Street. The greatest concentration of project-bound traffic would be on Fifth Street. About 50% of the vehicles leaving the site area would drive southbound; as Fourth Street is the only southbound street serving the majority of the nearby parking garages, most of these motorists would use Fourth Street. This trip distribution information was used in establishing future levels of service at the study intersections.

Table 4 presents intersection LOS analysis results. Project-related vehicle trips would result in six of the nine study intersections continuing to operate at acceptable levels of service (LOS B and C). Two intersections would operate at unacceptable conditions: the intersection of Howard and Fourth Streets would change from LOS C to LOS E and the intersection of Howard and Fifth Streets would change from LOS C to LOS F, causing significant impacts due to project-related traffic. The intersection of Harrison and Fourth Streets would continue to operate at LOS F, but would experience longer delays with the addition of project traffic. As noted in the Transportation Setting section, above, the exclusive bus lanes on Mission Street are often used by automobiles illegally under current conditions. The intersections of Mission and Fourth Streets and Mission and Fifth Streets were analyzed both assuming current levels of enforcement of the bus-only lane and assuming full enforcement. With full

TABLE 4
PM PEAK HOUR INTERSECTION LEVEL OF SERVICE^a

Intersection	Existing (1998)		Existing Plus Project		Future Year 2015 Cumulative	
	Delay (sec/veh)	LOS ^b	Delay (sec/veh)	LOS ^a	Delay (sec/veh)	LOS ^b
Market/Fifth/Cyril Magnin	14.1	B	19.9	C	25.2	D
Market/Fourth/Stockton/Ellis	13.3	B	24.1	C	31.7	D
Mission/Fifth	15.6/ > 60 ^c	C/F ^c	24.9/ > 60 ^c	C/F ^c	28.1/ > 60 ^c	D/F ^c
Mission/Fourth	12.1/14.1 ^c	B/B ^c	17.6/19.5 ^c	C/C ^c	21.7/25.4 ^c	C/D ^c
Howard/Sixth	11.0	B	12.0	B	14.5	B
Howard/Fifth	15.8	C	> 60	F	> 60	F
Howard/Fourth	21.4	C	57.0	E	> 60	F
Howard/Third	19.0	C	22.5	C	36.5	D
Harrison/Fourth	> 60	F	> 60	F	> 60	F

sec/veh = seconds per vehicle delay

a. The 4:30 to 5:30 PM peak hour which occurs during the 4 to 6 PM peak-period.

b. Level of Service (LOS) determined by the 1985 *Highway Capacity Manual* (Updated 1994), Chapter 9.

c. Delay and LOS for Mission/Fifth and Mission/Fourth intersections are shown both without/with enforcement of the exclusive bus lanes in Mission Street.

Source: Kolve Engineering, Inc.

enforcement, the Mission and Fifth Streets intersection would be at LOS F under current conditions, and would remain LOS F with the addition of project traffic, but would experience greater delays. The intersection of Mission and Fourth Streets would remain at LOS C with or without full enforcement of the bus lane, although delays would be slightly longer with enforcement. Removing the exclusive bus lanes or further reducing their enforcement would interfere with efficient transit service along this portion of the Mission Street corridor.

Intersections that operate at LOS F have excessive delays that are unacceptable to many drivers. These drivers generally would seek other, less crowded routes if any were available. The intersection of Fourth and Harrison Streets, leading to westbound I-80 and

southbound U.S.101, would continue to operate at LOS F under existing-plus-project conditions. Drivers would probably disperse along Howard and Harrison Streets in search of other, less congested freeway routes, or, finding all existing ramps highly congested, may seek other routes to their destination. Some drivers may increasingly choose to use I-280 via the ramps at Sixth and Brannan Streets. This dispersion would relieve some of the congestion at Fourth and Harrison Streets, but would add congestion at the I-280 ramps and at other intersections in the South of Market area.

Mitigation measures to address intersection performance and to encourage transit use would reduce traffic congestion impacts but these impacts would remain significant. These measures are described in Chapter IV.

Transit Impacts

The project would generate approximately 1,400 transit trips (about 710 inbound and 690 outbound) during the PM peak hour. Based on the project trip distribution, approximately 60% of the project-generated transit trips would use MUNI for trips either within San Francisco or to access regional transit operators located relatively far from the Project Site, such as AC Transit, Caltrain and ferries. The remaining 40% would use either BART, SamTrans, or Golden Gate Transit buses. Inbound transit service has considerable capacity available during the PM peak, unlike outbound service which is generally crowded with commuters. Therefore, the project transit impact analysis focuses on the 690 outbound transit trips.

MUNI service capacity was analyzed in terms of a series of screenlines. The concept of screenlines is used to describe the magnitude of travel from or to the downtown area and its vicinity, and to compare estimated transit volumes to available capacities in each transit corridor. Screenlines are hypothetical lines that would be crossed by persons traveling between downtown and its vicinity and other parts of San Francisco and the region.

Four screenlines have been established in San Francisco to analyze operational impacts of the proposed project on MUNI service: Northeast, Northwest, Southwest, and Southeast, and sub-corridors within each screenline. The sub-corridors by screenline are:

- Northeast: Kearny/Stockton Corridor (15 inbound, 30, 30X, and 45)
 All Other Lines (41, 42 and 82)
- Northwest: Geary Corridor (38, 38L, 38AX, and 38BX)
 All Other Lines (1, 1AX, 1BX, 2, 3, 4, 5, 21, 31, 31AX, 31BX,
 and 45)
- Southwest: Subway Lines (K, L, M, and N)
 All Other Lines (6, 7, 71 and F)
- Southeast: Third Street Corridor (15 outbound)
 Mission Street Corridor (14 and 14X)
 All Other Lines (9, 9AX, 9BX, and J)

The screenline for each transit line schematically reflects the Maximum Load Point for each MUNI line which crosses one of the screenlines. For the analysis in this EIR, MUNI ridership measured at the four San Francisco screenlines and sub-corridors represents the peak direction of travel and patronage loads for the MUNI system which corresponds with the PM commute outbound direction from the vicinity of the project to other parts for the City. The analysis is based on target rather than actual numbers of transit vehicles in service. Capacity utilization is based on MUNI's maximum load standard for each size of vehicle (i.e., passenger loads of 45, 63, 94, and 119 passengers per vehicle for 30-foot, 40-foot, and 60-foot buses and LRVs, respectively). In contrast to most other transit operators, MUNI's capacity standard of 1.0 includes not only seated passengers but also a substantial number of standees per vehicle (somewhere between 30% and 80% of seated passengers, depending on the specific transit vehicle configuration). Thus, MUNI screenlines at 100% of capacity operate under noticeably crowded conditions with many standees. Because each screenline includes several MUNI lines with many transit vehicles from each line, even when the overall ridership is shown to be substantially under 100% of capacity, some individual transit vehicles crossing the screenline during the PM peak operate at or above 100% of

capacity and are extremely crowded while others operate under less crowded conditions. This crowding is exacerbated whenever target headways are not met through missed runs and/or bunching in service.

During the PM peak hour, the project would increase MUNI ridership at the screenlines in the outbound direction by about 330 riders. (Another approximately 100 MUNI riders would disembark before their transit vehicle crossed any screenline.) At each sub-corridor, the capacity utilization would increase by approximately one percent. With the project, all screenlines and sub-corridors would continue to operate within the MUNI standard, with capacity utilization ranging from a low of 65% across the Northeast screenline to 85% across the Southeast screenline on the lines outside the Third Street and Mission Street corridors. This level of use would not exceed the MUNI service standard of 100% of capacity, although some lines and some individual vehicles would continue to be extremely crowded.

Approximately 210 additional regional transit riders from the project would be distributed among the many lines operating during the weekday PM peak commute hour. BART riders would be distributed among four BART lines to the East Bay and the San Francisco Daly City / Colma line (about 110 trips). (An additional 50 trips would be made on BART within San Francisco and would not cross the regional screenlines.) AC Transit riders would be distributed among 33 transbay routes to the East Bay (about 44 trips) and SamTrans riders would be distributed among nine bus lines to the South Bay (about 5 trips). Approximately seven Caltrain riders would commute from the Peninsula. Golden Gate Transit riders would be distributed among 26 basic and commuter bus routes to the North Bay (about 39 trips), and 10 riders would take the Golden Gate Transit Ferries.

In general, the addition of project-related passengers on the regional transit systems would not have a substantial impact during the PM peak hour in the outbound direction. The largest increase in ridership would be on BART, with approximately 100 additional passengers to the East Bay. All of the regional transit carriers, except BART, would continue to operate at less than 100% of capacity. Although BART to the East Bay would

operate at over 120% of capacity during the PM peak hour, during which time some trains would be very crowded, the three-hour load factor would be 113%, within the BART service standard of 115% of capacity for the three-hour period. The project would add about 0.5% to existing BART East Bay ridership. This would not be considered a significant environmental effect.

Parking Impacts

The project would displace about 10 on-street parking spaces with the proposed realignment of Jessie Street, and would reduce the already limited supply of on-street parking in the vicinity. Additionally, the project would displace the existing public parking lot at Lot 18, between Mission and Jessie Streets near Fifth Street, with 77 parking spaces, which would decrease the parking supply in the area.

The project would generate a daily parking demand for approximately 1,250 parking spaces (820 short-term and 430 long-term spaces). The project would not provide any off-street parking spaces, and thus the parking demand would not be met on-site. During the midday peak period, the parking facilities in the study area currently operate at approximately 80% occupancy (about 1,620 unoccupied spaces out of 7,655 total spaces). Parking demand from the project would reduce the number of unoccupied spaces to less than 400, or about 95% occupancy. Effective capacity of a parking facility is approximately 90% of the total capacity. When occupancy exceeds 90%, motorists are usually required to drive around the parking facility to find an available space. Consequently, people intending to park in the study area would find constrained parking conditions, or would be forced to park outside the study area, or potentially would switch modes to transit, carpool or other forms of travel. This analysis does not take into account additional spaces that may be made available for short-term parking if the Fifth and Mission Garage reduces the number of spaces leased on a monthly basis.

As noted in the Setting section, during peak holiday periods and during major events at the Moscone Convention Center, the parking facilities in the vicinity become essentially fully occupied. With these conditions, vehicles waiting to enter parking areas tend to queue at the driveways, leading to the blockage of through traffic, especially at the Fifth and Mission Garage. During these periods, vehicles destined to the Project Site may be required to park further away, and traffic at intersections near parking garage entrances could temporarily experience unacceptable levels of service.

Currently, the Nordstrom department store in the San Francisco Shopping Centre adjacent to the Project Site offers valet parking to customers. The parking is provided at the parking lot on Lot 18 on the Emporium Site, which would be removed with the project. Nordstrom, therefore, would need to find a new location to provide its valet parking. As described below under Future (2015) Cumulative Transportation Impacts, there would be a parking deficit in the future in the area around the Project Site; this deficit includes the loss of parking on the Project Site.

Parking shortfalls relative to demand are not considered significant environmental impacts in the urban context of San Francisco. Parking deficits are an inconvenience to drivers, but not a significant physical impact on the environment. The City's "Transit First" policy encourages a shift from the personal automobile to public transit. Faced with parking shortages, drivers who routinely come to the area (e.g., commuters) generally seek and find alternative parking facilities farther from their destination or shift modes of travel. Drivers who come to the area less frequently would be less likely to shift modes and would contribute to local congestion if they queue at nearby garage entrances such as the Fifth and Mission Garage, reducing travel capacity on nearby streets and intersections, or if they circulate through the downtown area to several nearby garages either south of the site or near Union Square before securing parking. Mitigation Measures included in Chapter IV would reduce but not eliminate this potential secondary impact.

Passenger Pick-Up and Drop-Off

The project would involve considerable passenger drop-off and pick-up both for the hotel and for the retail/entertainment and theater activities. It is assumed that most of this passenger activity would occur on the Mission Street side of the Project Site, because there are bus stop zones along the Market Street frontage.

Hotel Passenger Pick-up/Drop-off Operations

Passenger pick-up and drop-off for the hotel would occur from a porte-cochere located on Mission Street at Jessie Street West. Vehicles would enter the porte-cochere from Jessie Street West and exit the site to westbound Mission Street. The porte-cochere would have space for about three vehicles at the same time. This space would not be sufficient to accommodate the demand for valet parking and passenger pick-up and drop-off for the hotel during peak hours. It is estimated that a total of four to six spaces would be needed based on the observation of other similar sized hotels in San Francisco, such as the Mandarin Hotel and the Park Hyatt Hotel.

The porte-cochere would not include space for taxis to wait for passengers. The Mission Street north side curb space could be painted for taxi queuing, but this space would not be available during the PM peak period, as no parking is permitted on this part of Mission Street between 3:00 and 6:00 PM on weekdays. It is estimated that a total of two to three taxi queuing spaces would be needed for the hotel, based on observed conditions at other hotels in San Francisco. Without a designated taxi queuing space, taxis may attempt to use the porte-cochere or wait illegally in the "no parking" area along Mission Street, temporarily interfering with westbound peak period bus and automobile traffic.

The Redevelopment plan contains no tour bus loading requirements for hotels. Planning Code provisions regarding tour bus loading would not apply, but are provided for informational purposes. The proposed hotel would be required by the *Planning Code* to

provide a minimum of one off-street tour bus loading space. Section 162(b) of the *Planning Code* permits bus loading to be provided at adjacent curbs if the site configuration precludes the provision of an off-street tour bus parking space. The project does not have provisions for tour bus parking, either off-street or at an adjacent curb. If tour buses were to be used at the hotel, curb loading during the PM peak period could interfere with westbound traffic flows on Mission Street, particularly transit buses using the adjacent bus-only lane. While tour buses are not expected to visit the hotel regularly, the hotel operator has not been selected, and tour bus use cannot be predicted with certainty.

Secondary traffic and transit effects related to hotel loadings, taxi queuing, and tour bus loading would be addressed by Mitigation Measures included in Chapter IV.

Retail and Theater Patron Pick-up/Drop-off Operations

At the Mission Street entrance to the project buildings, an eight-foot-wide, 80-foot long, indentation in the north side sidewalk is proposed at the existing mid-block crosswalk, for a passenger loading zone. This would provide space for approximately three to four vehicles to load/unload at one time, with space for entering and leaving the loading area. The proposed location of the passenger loading area, overlapping the existing mid-block crosswalk, could cause conflict between pedestrians using the crosswalk and vehicles leaving the passenger loading area. A mitigation measure is identified in Chapter IV that would eliminate these conflicts.

The number of spaces for passenger pick-up/drop-off for the retail/entertainment and theater uses in the project cannot be reliably estimated; however, if more than four vehicles were to pick up or drop off passengers at the same time, double parking would occur, with related delays to transit and vehicle traffic on westbound Mission Street. Mitigation Measures to reduce this potential impact are discussed in Chapter IV.

Pedestrian Impacts

The project would generate over 26,000 daily pedestrian trips, including walk trips to and from the project from other downtown areas, persons who park in the nearby areas and then walk to the Project Site, and persons walking from transit stops to the Project Site. The project would include a new pedestrian bridge across Mission Street from the project to the fifth level of the Fifth and Mission Garage. Pedestrians destined to and from the site would be expected to use primarily Stockton, Market, Fourth and Mission Streets.

With the Fifth and Mission Garage pedestrian bridge, a total of about 480 pedestrians would use the west crosswalk at Fourth and Mission Streets during the weekday PM peak 15 minutes; about 180 of these pedestrians would be walking to or from the Project Site. About 390 people would use the east crosswalk at Fifth and Mission Streets (about 170 from the Project Site), and about 310 would use the mid-block crosswalk in Mission Street (about 270 from the Project Site). Without the pedestrian bridge, the crosswalks would carry 520, 430 and 580 pedestrians, respectively. The west crosswalk at Mission and Fourth Streets would operate at LOS D with project pedestrian traffic without the pedestrian bridge to the Fifth and Mission Garage, and at LOS C with the pedestrian bridge. The mid-block crosswalk on Mission Street would operate at LOS B with project-related pedestrian traffic, with or without the proposed pedestrian bridge to the Fifth and Mission Garage. The crosswalks at Market/Fifth Streets; Market/Fourth/Stockton Streets; Mission/Fifth; and the Powell/Market crosswalk (between Fourth and Fifth) would operate within acceptable conditions during the PM peak, ranging from LOS A to LOS C.

The Mission Street north side sidewalk adjacent to the Project Site is 15 feet wide and operates at LOS B during platoon periods (where a group of pedestrians passes a spot all at once). The project would add about 275 to 325 pedestrians to the sidewalk during the PM peak 15 minutes. If the sidewalk were to remain 15 feet wide, it would continue to operate at LOS B with added pedestrian traffic from the project, both with and without the pedestrian bridge to the Fifth and Mission garage. The project includes a cut-out to provide street

space for a passenger drop-off area, reducing the sidewalk width at the building entrance to about 7 feet. Under these conditions, the sidewalk would operate at LOS F with project pedestrian traffic, creating jammed conditions.

With conditions predicted to be LOS F on a regular basis in the PM peak hour, it is reasonable to expect that during the year-end holidays and before and after particularly popular films, the sidewalk would be unable to handle pedestrian volumes, creating potential pedestrian hazards, as some pedestrians would be forced to step off the curb into the street. Mitigation measures are identified in Chapter IV which would, if implemented, reduce pedestrian overcrowding to less than significant levels.

LOADING AND TRUCK CIRCULATION

As shown on Figure 2 in the Project Description, Jessie Street would be reconfigured as part of the proposed project. The mid-block portion of Jessie Street would be closed and vacated; in order to accommodate traffic circulation on the project block, Jessie Street would be reconfigured into Jessie Street East (between Mission and Fourth Streets) and Jessie Street West (between Mission and Fifth Streets). Both would operate one-way only, with entrances from Mission Street. In order to accommodate turning movements by large trucks, longer than 35 feet, the west-side sidewalk on Jessie Street East and Jessie Street West at Mission Street would be 7 feet wide. These circulation changes would affect existing and project truck loading activities on the Project Site.

Loading

The project would include a loading area with 14 off-street loading docks, to be accessed from Jessie Street West. According to assumptions and methodology in the Planning Department's *Guidelines for Environmental Review*, the project would generate about 265 delivery/service trips on an average weekday. These trips would be made in a variety of vehicle types, ranging from delivery vans and step-vans to full tractor/trailer rigs 45 feet long

or longer. The project would result in a demand for about 12 to 15 loading spaces. During the peak hour of loading demand, the project would have a shortfall of one loading space. Trucks that did not find a loading space within the loading court would likely park either at a metered parking space on the south side of Jessie Street West or on the north sidewalk on Jessie Street West, near the loading dock.

Loading standards from the *Yerba Buena Center Redevelopment Plan* are proposed to be included in the Design for Development documents for the proposed Project Site. These loading standards would yield a requirement of 16 loading spaces for the development project. As the project proposes to provide 14 spaces, a variance from the requirement would be needed; the variance process includes a public hearing before the Redevelopment Agency Commission. Loading requirements of the City Planning Code, while not applicable to the proposed Redevelopment Plan amendment area and the development project, would dictate provision of 51 off-street loading spaces for a retail/hotel project of the size proposed. These Planning Code requirements are generally based on demand generated by small-scale retail uses, and do not accurately reflect loading demand at large department stores and multiple retail establishments such as the proposed project.

The assumptions and methodology in the Planning Department's *Guidelines for Environmental Review* are based on detailed research conducted for the Planning Department in the *Center City Circulation and Goods Movement Study* in the late 1970's. The study provides specific truck trip generation rates for a department store land use. These data were compared with loading dock occupancy data provided by the Project Sponsor for a comparable size hotel and downtown shopping center located in Cleveland, Ohio. This comparison showed that the loading occupancy data provided by Project Sponsor are comparable to the Planning Department's information on demand for loading space. The Planning Department *Guidelines* do, however, indicate that substantially more daily and peak hour truck trips would be generated than the project sponsor's Cleveland data show.⁵ In the analysis for this project, the estimates of daily and peak hour truck trip generation used to

analyze truck travel on Jessie Street West are, therefore, based on the Planning Department's *Guidelines* to ensure that conservatively high estimates are used.

Circulation and Traffic on Jessie Street West

Trucks would use westbound Mission Street and reconfigured Jessie Street West to access the project's loading area (no left turns would be allowed from eastbound Mission Street to Jessie Street West). Trucks would travel north on Jessie Street West, negotiate the left turn to the westbound portion of Jessie Street West, and back into the truck court, or would access the loading area directly from Jessie Street West without backing-up. In order to provide sufficient turning radius for large trucks, the west sidewalk on Jessie Street West at Mission Street would be about 7 feet wide, instead of the more typical 10 feet. In order to provide for left turns to the westbound portion of the street, the north sidewalk would be narrowed to about six feet from the existing 10 feet for some distance west of the turn. Although typical semi-tractor trailer trucks could drive directly into the loading court and back into a loading dock space, this movement would be limited to times when some of the loading docks were not in use. For peak periods of loading, the maneuvering could cause traffic to back up on Jessie Street West, and could delay vehicles intending to access the hotel porte-cochere at the south end of Jessie Street West or any Pickwick Hotel loading activities in Jessie Street West.

Trucks leaving the project loading court would exit the site using Jessie Street West to Fifth Street. The project would generate about 36 outbound truck trips during the peak delivery hour. During the average and peak loading hours, Jessie Street West would be occupied about 25 - 35% of the time by trucks maneuvering into the project's loading court or leaving the loading court, by trucks entering and leaving the Pickwick Hotel's loading area, or by trucks waiting to turn from Jessie Street West onto Fifth Street. With the increased traffic from the project, trucks and other vehicles on Jessie Street West would experience delays of over 60 seconds at the intersection with Fifth Street, if it is assumed that 80% of the vehicles would make left turns to southbound Fifth Street. This could cause a queue on Jessie Street

West extending back to the 90° turn and possibly block the entrance to the project's loading docks. Because potential delays would primarily be experienced by project-generated truck traffic, they would not be considered significant.

The project sponsor has agreed to be responsible for annual monitoring of traffic operating conditions at the intersection of Jessie Street West and Fifth Street and for costs of installation of a traffic signal, up to \$150,000, if warranted, due to the non-significant impacts on loading activities. The Department of Parking and Traffic would be responsible for the design and installation of the traffic signal if the intersection were to meet the standard signal warrants based on the results of monitoring, and if a signal could be installed without resulting in significant impacts related to queuing or intersection performance. A preliminary analysis conducted by Korve Engineering and the Department of Parking and Traffic staff indicates that in concept, a signal at this location could be designed to work without causing extended queuing on Fifth Street or substantially affecting the LOS of the Fifth/Mission and Fifth/Market Streets intersections. However, due to the off-set of Jessie Street on the west side of Fifth Street, the close proximity of the loading dock for the San Francisco Centre on the east side of Fifth Street, and existing queuing of vehicles on the northbound approach to Market Street on Fifth Street, design details must be resolved before the installation of a signal can be pursued at this location.

Circulation on Jessie Street East

Jessie Street would also be reconfigured on the east side of the Project Site, providing access from eastbound Mission Street to one-way Jessie Street East, exiting at Fourth Street. Trucks destined to Pacific Center as well as other uses along Jessie Street on the east side of the Project Site would use Jessie Street East. The sidewalk widths along the northbound leg would be similar to those described for Jessie Street West, to provide enough street space for large trucks to negotiate the turn from Mission Street. Similarly, the sidewalk on the north side of the eastbound leg would be narrowed to facilitate right turns within Jessie Street East. Overall, the total vehicle volume on Jessie Street East could be reduced somewhat because

the Flying Dutchman parking lot on the west side of the Project Site would be displaced by the project and because through traffic between Fifth and Fourth Streets would no longer be possible. This reduction could be offset by increases in numbers of vehicles using Jessie Street East as a drop-off point for theater patrons, shoppers, and restaurant patrons, as proposed in the Mitigation discussion, Chapter IV.

The Pacific Center building would generate about 18 outbound truck trips during the peak delivery hour.⁶ (The Pacific Center project as approved in 1997 includes uses that may generate less loading demand than calculated in that project's EIR; therefore 18 truck trips may be a conservative value.) With the mitigation included in Chapter IV, the project's cinema would generate increased traffic on Jessie Street East for passenger pick-up and drop-off. This passenger drop-off activity could occur at a time when there would also be delivery truck activity. It is not expected that the Jessie Street East intersection with Fourth Street would experience unacceptable levels of service, but there could be occasional pedestrian-truck conflicts in this area, when trucks would have to wait for pedestrians to clear the crosswalk. Potential impacts associated with Jesse Street East operations would not be considered to be significant environmental impacts.

CONSTRUCTION IMPACTS

Project construction is expected to begin in 1999 and be completed by fall 2001. Total duration of construction is anticipated to be approximately 30 months. Demolition within the existing Emporium Building and shoring of the existing facade is anticipated to take five months. Construction of the main building structure is anticipated to take approximately six months, and construction of the hotel structure is anticipated to take an additional six months. Interior and exterior finishes are anticipated to take approximately nine months for the main building and nine months for the hotel.

During the peak construction period, approximately 470 workers would be on site on an average day. This would result in a temporary parking demand by these workers. Off-site

parking arrangements would be made by the project contractor to meet this temporary parking demand. The addition of approximately 470 construction worker vehicles would affect the operating conditions at the study intersections. However, since these vehicles would be fewer than half of the number of vehicle trips generated by the project, impacts at the intersections would be less than those shown above during project operation. A portion of the construction workers may take transit to access the Project Site. Since transit operators currently have available capacity, no substantial impacts on transit facilities would occur due to the temporary addition of construction workers.

It is anticipated that the number of construction-related trucks would range from two to 35 per day, depending on the construction phase. The peak construction period for truck trips would occur during the end of the demolition phase and the beginning of the grading and excavation phase, which would occur during the summer 1999, with approximately 35 trucks a day.

Construction staging is anticipated to occur within the Project Site. A construction fence would probably be installed on the perimeter of the Project Site at four locations: Jessie Street East, Jessie Street West, Mission Street, and Market Street. Along Jessie Street East and West, the sidewalk closest to the project would be temporarily closed, and pedestrian traffic would be directed to the sidewalk on the opposite side of the street. However, since pedestrian traffic is relatively light on Jessie Street, this rerouting would not substantially affect pedestrian conditions. The north curb lane and sidewalk of Mission Street would be temporarily closed along the project frontage, and a temporary pedestrian walkway would replace the sidewalk. If the curb parking lane is used for a pedestrian walkway, the capacity of Mission Street would be reduced during the PM peak period. While the "no parking" requirement on the north side of Mission Street during the PM peak period does not provide additional travel lanes on Mission Street, it improves flow by providing additional space for through vehicles to travel around vehicles making right turns. The temporary worsening of operating conditions along Mission Street during construction would affect transit bus operations, especially in the westbound direction. If construction activities were to require

that a travel lane be temporarily closed on the north side of Mission Street in addition to use of the parking lane, transit service would be further constrained. Electric trolleybuses would need to use the same lane of travel as other vehicles and would reach the limits of the overhead electric wires. It is possible that the wires for westbound trolleybuses would need to be temporarily relocated closer to the center of the street to permit necessary maneuverability during part of project construction, as was done on the block immediately to the east during construction of the Marriott Hotel.

Construction staging would also occur along the south sidewalk of Market Street. A temporary construction wall would be placed along the project frontage. Since the Market Street sidewalk is approximately 35 feet wide at this point, pedestrian operations should not be substantially affected, and no traffic lanes on Market Street would be affected.

The impact of construction truck traffic would be a temporary lessening of the capacities of streets due to the slower movement and larger turning radii of trucks. The reduction in capacity would slow movement of traffic, including MUNI buses. The reduction in capacity would be a temporary, short-term effect and would not be expected to occur on a daily basis during the 30-month construction period.

Seismic retrofit of the San Francisco-Oakland Bay Bridge approaches is planned by Caltrans for the period from about 1999 to 2003. The capacity of the freeway approach to the Bay Bridge (I-80 eastbound) will be temporarily reduced and various on- and off-ramps may be closed for extended periods. Traffic congestion near the freeway ramps leading to the Bay Bridge, such as the ramp at Fifth and Bryant Streets, is likely to temporarily be greater than that expected in the future (2015) with cumulative development, discussed below. Project construction traffic, as well as operational traffic following completion of construction, would contribute to this extensive traffic congestion. It is possible that some downtown employees who commute between the City and the East Bay would shift to BART and AC Transit during this period, increasing crowding on these transit facilities. The retrofit would be

completed several years before the 2015 analysis year; therefore, it would not affect the results of the cumulative transportation analysis.

The project sponsor would require that during the construction period, construction truck movement occur only between 9:00 AM and 3:30 PM or after 6:30 PM and before 7:00 AM or other times, if approved by the Department of Parking and Traffic, to minimize peak hour traffic conflicts. The project sponsors and construction contractor(s) would meet with the Traffic Engineering Division of the Department of Parking and Traffic, the Fire Department, MUNI, and the Planning Department to determine feasible measures to reduce traffic congestion, including transit disruption (for example, potential relocation of bus stops), and pedestrian circulation impacts during construction of the project.

Construction effects would be intermittent and temporary during the construction period. While these effects would not be considered significant for this reason, the potential disruptions and loss of vehicular and sidewalk capacity would be of concern to those who use nearby streets and transit services, particularly in light of ongoing construction on and near Mission Street east of Fourth Street for several projects in the Yerba Buena Center.

FUTURE (YEAR 2015) CUMULATIVE TRANSPORTATION IMPACTS

Traffic Impacts

To determine the cumulative impacts of project-related traffic on the street system it is first necessary to establish the background traffic conditions for the target year for the project. The development of future year 2015 conditions is based on the Metropolitan Transportation Commission (MTC) regional travel demand model, which is typically used to obtain estimates of growth in San Francisco and the nine-county Bay Area. The model is able to quantify shifts in travel patterns related to changes in roadway configurations, changes in land uses, as well as changes in modal split due to anticipated improvements to transit access, and accounts for other factors such as traffic congestions and parking costs.

The most recent MTC travel demand estimates incorporate the Association of Bay Area Governments (ABAG) *Projections '96* land use and socioeconomic database. These projections account for general growth in San Francisco, including individual development projects such as the proposed project. They do not, however, explicitly include the most recent development plans for a number of areas within San Francisco, such as: Hunters Point Shipyard reuse, the Mid-Market area, development in Mission Bay under proposed redevelopment plans, Presidio reuse, the Transbay Terminal Concept Plan, and development in Bayview-Hunters Point under a proposed redevelopment plan. The ABAG *Projections '96* database in the MTC model was, therefore, adjusted to reflect the amount of development that would be anticipated for each of the above-cited projects by 2015. Those adjusted estimates provide the basis for future year 2015 traffic and transit conditions in this analysis, and are consistent with projections used for the San Francisco Giant's Ballpark, Mission Bay, and Transbay Area analyses prepared in 1997-98.

Table 4, p. 134, presents the results of the future 2015 cumulative intersection LOS analysis for weekday PM peak hour conditions. As shown in the table, the intersection of Howard and Fifth Streets would change from LOS C to LOS F under existing-plus-project conditions, and would continue to operate at LOS F in 2015, with increased delays due to cumulative growth including that from the project. Conditions at Howard and Fourth Streets would change from LOS E with existing-plus-project conditions to LOS F with cumulative conditions. The intersections of Mission and Fourth Streets (LOS C) and Howard and Sixth Streets (LOS B) would continue to operate as with existing-plus-project conditions. At Market and Fifth Streets, Market and Fourth Streets, Mission and Fifth Streets (assuming enforcement of the exclusive bus lanes remained as it exists today), and Howard and Third Streets, the operating conditions would change from LOS C under existing-plus-project conditions to LOS D by 2015. If the bus lanes were more strictly enforced in the future, the Mission and Fourth Street intersection would change from existing LOS B to LOS D, and the Mission and Fifth Street intersection would continue to operate LOS F, with increased delay compared to the existing-plus-project scenario.

The intersection of Fourth and Harrison Streets would remain at LOS F, traffic from the project and other cumulative downtown growth would increase the severity of congestion. Based on increased delays at this intersection as well as other analyzed intersections, broader adverse cumulative traffic impacts may occur as drivers seek out alternative routes. Particularly near freeway ramps and access routes, arterials and intersections throughout the South of Market area, including Howard, Harrison, Folsom, Bryant, First, Third, Fourth, Fifth and Sixth Streets may be impacted by cumulative downtown traffic growth. Cumulative traffic impacts would, thus, be expected to be considerably dispersed and may result in broader adverse impacts.

Transit Impacts

The projected growth in MUNI ridership by the year 2015 is expected to exceed the operating capacity for MUNI Northeast, Northwest and Southwest screenlines, creating unacceptably crowded conditions on most bus lines in these corridors. Overcrowding would likely cause delays in MUNI service as many passengers would not be able to board overcrowded vehicles. The project would contribute less than 1% to the 2015 cumulative transit ridership.

Projected future regional transit ridership and capacity assumptions show that growth in East Bay ridership for the year 2015 would substantially exceed operating capacities of both BART and AC Transit.⁷ BART East Bay PM peak hour utilization would be about 122% of capacity and AC Transit would be 149% of capacity. However, the project contribution to cumulative transit ridership would be less than 1% on these regional transit systems, and the project alone would not contribute substantially to the peak-hour capacity conditions. Other regional transit service would operate within acceptable levels.

The project and other nearby new development would increase pedestrian flows, add to intersection traffic volumes, introduce additional pull-outs and driveways for vehicle access/egress and pedestrian loading along Mission Street, and contribute to queuing at

parking garages, thus increasing congestion on streets in the project area. This increased congestion, which is described as cumulatively significant above, could potentially create delays for transit operations on Mission Street and Fourth Street near the Project Site.

Parking Impacts

The parking analysis assumes that by the year 2015 development would displace certain surface parking lots in the project vicinity, including lots along Mission Street, Howard Street, and Third Street. Anticipated future development would lead to a reduction of approximately 1,110 parking spaces in the study area. In addition, the project itself would displace about 77 off-street parking spaces, for a total displacement of about 1,180 spaces. Future development within the parking study area (see p. 125 for a description of the parking study area) would create about 1,015 new parking spaces, resulting in about 8,670 spaces in the parking study area in 2015. This total does not take into account any additional parking spaces made available in the area if the Fifth and Mission Street Garage were to reduce the number of monthly parking space leases and make some of those spaces available for short-term parking.

The Mexican Museum, the Jewish Museum, the Children's Center, the Sony Metreon, Moscone Center Expansion, the Millennium Project and the Starwood Hotel are among anticipated future development in the project vicinity. This and other nearby cumulative development would add a demand for about 3,340 daytime parking spaces in the project vicinity.

In general, with the removal of surface parking lots and the opening of the new buildings, the parking demand in the vicinity of the project in 2015 would exceed capacity, with an estimated parking shortage of approximately 1,880 spaces during midday periods. A summary of future parking supply and demand is shown on Table 5. With this anticipated parking shortfall, it would be relatively difficult to park in the nearby vicinity, which would impact parking conditions near the Project Site and near other development in the area

around the project. Queues would form at parking garage entrances on a more regular basis, and would disrupt traffic circulation in nearby intersections more frequently. Some drivers, however, would shift their travel mode to public transit given the lack of parking, and others may choose to visit the area at off-peak times, reducing the parking demand and related queues to garages. Mitigation to address potential secondary impacts of the unmet parking demand, such as queuing at garage entrances and localized congestion, is provided in Chapter IV.

Pedestrian Impacts

Cumulative development near the Project Site, including YBC development projects such as the Metreon complex, the Moscone Center West expansion, and museums and the Millennium project on the YBC Market Street block (CB-1), would add pedestrians to crosswalks and sidewalks in the project vicinity. The YBC Subsequent EIR analyzed pedestrian impacts from full development of the Redevelopment Plan, not including the Moscone Center West project, in 1992.⁸ The results of that analysis showed that some sidewalks would be "impeded" or "constrained," but would not reach upper limits of desirable flow ("constrained" is a designation for sidewalks where choice of speed is occasionally restricted and passing other pedestrians may be difficult; it is similar to Level of Service C in the analysis methods used to describe the proposed project's pedestrian impacts discussed above). The Moscone Center West is expected to be served primarily by shuttle buses, but will also generate pedestrian traffic from nearby hotels such as the Parc 55 and the Marriott, which would contribute to pedestrian congestion along Fourth and Fifth Streets between Market and Howard Streets.

All of the crosswalks analyzed for the proposed project would operate at LOS C or better under existing-plus-project conditions (with the pedestrian bridge to the Fifth and Mission Garage). The analysis for development in the Yerba Buena Center Redevelopment Area as it was proposed in 1992 also showed that pedestrian conditions would be at about LOS C. The project, adding about 170 more pedestrians, did not cause the west crosswalk at Fourth and

TABLE 5
SUMMARY OF FUTURE PARKING SUPPLY AND DEMAND/a/

Location	Existing Supply /b/	Existing Occupancy /b/	Spaces Lost to Development	Spaces added by New Development	Demand from New Development	Net (Demand) or Surplus/c/
YBC Market Street block (New museums and Millennium project)	210	150	210	375/d/	793	(568)
Moscone Center West (YBC WB-2)	623	583	623	0	300	(883)
Sony (Metreon)	0	0	0	0	393	(393)
Third and Mission North Side (YBC EB-1)	150	98	150	307/e/	500	(291)
Third and Mission South Side (YBC EB-2)/f/	120	105	120	0	106	(211)
SF MOMA Garage	0	0	0	335	0	335
Other Parking Facilities	6,476	5,043	0	0	-	1,433
Project	77	56	77	0	1,248	(1,304)
Net Deficit						(1,882)

Notes:

- The parking study area is described on p. 125.
- The existing parking supply and occupancy values are based on survey data from March 1998 and account for valet parking in some lots and garages.
- Net (demand) or surplus is (existing supply - spaces lost to development + spaces added by new development) - (existing occupancy + demand from new development) = either (demand) or new supply (For example: $210 - 210 + 375 = 375$; $150 + 793 = 943$; $375 - 943 = (568)$ or demand for 568 spaces)
- Wilbur Smith Associates, "Yerba Buena Tower Site Access Review," draft report, July 31, 1998. An additional 280 spaces has been proposed for under Jessie Square; they have not been included in the calculations because they have not been accepted as part of the Millennium Project. If included, these spaces would reduce the overall deficit to about 1,600 spaces.
- Wilbur Smith Associates, "Third/Mission Site Access Review," draft report, August 10, 1998.
- The values for this block include loss of the parking lot at the southeast corner of Third and Mission Streets and future demand from the Starwood Hotel now under construction at Third and Howard Streets; demand from the Third and Mission Streets corner has not been included because no specific development has been formally proposed.

Source: Korv  and EIP Associates.

Mission Streets—the most congested crosswalk analyzed for the existing-plus-project scenario—to degrade below LOS C. Combining pedestrian estimates from the Project with those estimated to result from development of the remaining parcels in the Redevelopment Area would add additional pedestrians, and could increase congestion in this and other crosswalks to the south and east of the Project Site. It is not expected that cumulative development would cause unacceptable pedestrian LOS E or F conditions on a regular basis. Nonetheless, immediately after popular films at the project's theaters, and after events at Moscone Center and/or Moscone Center West, the Metreon, or the other various museums and theaters in YBC, surges of pedestrians leaving the area would cause greater congestion on sidewalks or in crosswalks until event attendees disperse to transit facilities or parking locations.

NOTES: Transportation

1. Kolve Engineering, Inc., Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development Transportation Study, October, 1998. This report is on file and available for public review at the Planning Department, 1660 Mission Street, Fifth Floor.
2. A survey of off-street parking supply and occupancy within an approximately two-block radius was conducted on Tuesday, March 10, 1998. The off-street parking survey included occupancy data for the weekday midday period between 1:00 and 3:00 PM. A total of 14 public parking facilities, consisting of approximately 7,655 off-street parking spaces were surveyed.
3. Kolve Engineering, Inc., Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development Transportation Study, October, 1998.
4. Kolve Engineering, *1000 Van Ness Mixed-Use Development Transportation Study, Final Report*, February, 1996. (Department of City Planning Number 94.618.)
5. A difference in assumptions of how long trucks remain in the loading dock accounts for the comparability in loading space demand but difference in number of truck trips. Project sponsor's information assumes that fewer trucks would take up to 2 hours to unload/load, compared with the Planning Department's data showing more trucks with a stay of about 25 minutes per vehicle.
6. San Francisco Planning Department, *Pacific Center Retail Market/Fourth Street FEIR*, (Case No. 91.159E), certified August 1993.
7. BART would operate with a three-hour performance standard of about 111%, within its 115% standard.
8. San Francisco Planning Department, *Yerba Buena Center Final Subsequent Environmental Impact Report*, Case No. 91.355E, certified December 1992, pp. 107 - 109 and pp. C-7 to C-9.

F. AIR QUALITY

SETTING

Air quality is regulated at the federal, state, and local levels. A series of laws and regulations provide a basis for air pollutant control efforts. The major controls focus on criteria air pollutants, pollutants for which ambient standards have been established.

Based on the authority of the federal Clean Air Act, as amended, and the California Clean Air Act, federal and state regulatory agencies set upper limits on airborne concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and small-diameter particulate matter (PM₁₀). These pollutants are commonly referred to as Criteria Air Pollutants. Appendix D presents a description of criteria air pollutants and their effects. The ambient air quality standards are designed to protect segments of the population most susceptible to the pollutants' adverse effects (e.g., the very young, the elderly, people weak from illness or disease, and persons doing heavy work or exercise). The Bay Area Air Quality Management District (BAAQMD) is primarily responsible for planning, implementing, and enforcing federal and state ambient air quality standards in the Bay Area. Current BAAQMD plans for air quality improvement include the Ozone and Carbon Monoxide Attainment/Maintenance Plans, which address federal requirements¹, and BAAQMD's *1997 Clean Air Plan*.²

The BAAQMD compiled inventories and projections of CO, ROG (Reactive Organic Gases, precursors of ozone), NO₂, SO₂, and PM₁₀ emissions for the major pollutant sources in the Bay Area for the years 1995, 2000, and 2010. Table 6 presents a summary of the emissions inventory and trends of air pollutants for the Bay Area. The substantial reductions apparent in the ROG and CO emissions from 1995 to 2000 are attributable to the stringent emission controls that have been, or will be, imposed on motor vehicles and stationary sources.

TABLE 6
BAY AREA CRITERIA POLLUTANT EMISSIONS INVENTORY AND PROJECTIONS
(Tons/Day - Annual Average)

	CO	ROG ^a	NO ₂	SO ₂	PM ₁₀ ^b
1995					
Total Emissions	2,425	535	454	102	462
Motor Vehicle Emissions	1,598	242	200	10	321
(Motor Vehicles' Percent of Total)	(66%)	(45%)	(44%)	(10%)	(70%)
2000					
Total Emissions	1,963	464	441	107	501
Motor Vehicle Emissions	1,108	166	171	10	355
(Motor Vehicles' Percent of Total)	(56%)	(36%)	(39%)	(9%)	(71%)
2010					
Total Emissions	1,600	406	449	115	582
Motor Vehicle Emissions	697	88	161	12	427
(Motor Vehicles' Percent of Total)	(44%)	(22%)	(36%)	(10%)	(73%)

Notes:

- a. Reactive organic gases, precursors of ozone (excluding emissions from natural vegetation).
- b. Including entrained road dust. (Projections are based on the Base Year 1990 Air District Emission Inventory.)

Source: Bay Area Air Quality Management District and Association of Bay Area Governments, *Improving Air Quality Through Local Plans & Programs*, October 1994.

PM₁₀ is expected to increase, mostly due to the growth in motor vehicle travel. SO₂ is also expected to increase in the year 2010 due to increased motor vehicle travel.

The BAAQMD emissions projections assume the following:

- Population, housing, employment, economic growth, and land use will increase as regionally forecast.³
- Cars will become cleaner, as required by California regulations.
- The recently enhanced "Smog Check" program will continue.
- Controls on industry and business will continue.
- Current transportation control measures will continue.

Both the federal Clean Air Act and the California Clean Air Act require that the California Air Resources Board designate as “non-attainment areas” portions of the state where federal or state ambient air quality standards are not met. The nine-county San Francisco Bay Area Air Basin has historically recorded violations of federal and state ambient air quality standards for ozone, CO, and PM₁₀. Since the early 1970’s, substantial progress has been made toward controlling these pollutants. In 1995, the U.S. Environmental Protection Agency designated the Bay Area as an attainment area for the federal ozone standard⁴, and is considering a request for a similar designation for the federal CO standard. The California Air Resources Board has designated the Bay Area as an attainment area for the state CO standard. However, the U.S. Environmental Protection Agency recently redesignated the Bay Area as a non-attainment area for ozone because of violations of the federal standard in 1995 and 1996. Occasional violations of state ozone and PM₁₀ standards still persist. Although further air quality improvement is anticipated, attainment of state standards for these pollutants is not expected within the current 20-year planning horizon. In summary, the Bay Area is not in attainment for ozone under federal and state standards, and not in attainment of PM₁₀ under state standards.⁵

IMPACTS

SIGNIFICANCE CRITERIA

BAAQMD has established thresholds for assessing project impacts on air quality.⁶ These thresholds are commonly used to determine the significance of most air quality impacts under CEQA. To evaluate criteria air pollutants on a project level, construction-related emissions are typically considered less than significant if appropriate mitigation is employed to minimize particulate emissions. For operational impacts, emissions of over 80 pounds per day of ROG, nitrogen oxides (NO_x), or PM₁₀ are considered significant. Localized CO emissions are considered in the context of vehicle-related roadside concentrations, since CO is a local pollutant that does not readily disperse. CO concentrations are measured against the state

standard, which is more stringent than the federal standard. CO emissions in excess of the state standard are considered a significant impact. As discussed below, project-specific emissions of certain criteria pollutants would be significant.

ANALYSIS METHODOLOGY

A computer model (URBEMIS5) was used to assess regional air quality impacts of project-related traffic. URBEMIS5 was developed by the California Air Resources Board as a planning tool to help in assessing the impacts of proposed projects. URBEMIS5 uses emission factors from EMFAC7Fv1.1 (a California Air Resources Board computer model) to assess the pollutants that would be generated by vehicle trips associated with the project land uses. Trip generation numbers were developed by land use category, and average trip lengths were calculated. The default values recommended in *BAAQMD CEQA Guidelines* for percentages of cold starts and trip speed were used. All pollutants except CO were analyzed under summer conditions using a temperature of 75 degrees Fahrenheit. CO was analyzed under winter conditions at 50 degrees Fahrenheit.

CO is first assessed at a regional screening level, similar to ROG and NOx. If regional screening levels from the project do not exceed the BAAQMD threshold of 550 pounds per day, no further analysis of CO is necessary, and the project would not have a significant effect on CO levels. If the project would exceed the screening threshold, a "project-level" analysis is carried out for localized CO emissions.

For the project-level, localized CO analysis, Caltrans' CALINE4 program was used; Caltrans *CO Protocol* guidelines were used to establish "worst-case" conditions at all of the intersections studied. Under worst-case conditions, receptors are placed in locations with maximum exposure to CO, and a stable atmospheric environment is assumed in which dispersion of CO is minimal. Since CO levels fall off rapidly as distance from the intersection

increases, sensitive receptors located at greater distances would experience much lower CO levels.

Since CO levels fall off rapidly as distance from the intersection increases, sensitive receptors located at greater setback distances would experience much lower CO levels. For the "project"-level analysis, Caltrans' CALINE4 program was used to model local CO impacts. The CALINE4 model was used according to the Caltrans guidelines ("*CO Protocol*"). Emission factors recommended by the BAAQMD CEQA Guidelines were used. For the purpose of this analysis, CO concentrations were modeled under "worst-case" conditions at all of the intersections.⁷

EXISTING-PLUS-PROJECT AIR QUALITY IMPACTS

Regional Air Quality Impacts

The primary sources of criteria pollutants during project operation would be vehicular emissions from new traffic. Table 7 shows the project in relation to BAAQMD's significance thresholds for the evaluation of the ozone precursors (ROG and NO_x) and PM₁₀, and the threshold for further analysis of CO. Project-related emissions of NO_x and PM₁₀ would exceed BAAQMD significance thresholds and would result in a significant impact on regional air quality. CO emissions would also exceed the screening threshold of 550 pounds per day; therefore, a micro-scale analysis of intersection CO concentrations was performed to assess the project's effects on local CO concentrations.

TABLE 7
ESTIMATED VEHICULAR EMISSIONS FROM PROJECT-RELATED TRAFFIC

Pollutant	BAAQMD Significance Threshold (lb/day)	Estimated Project Vehicular ^a (lb/day)
Reactive Organic Compounds (ROG)	80 ^b	69
Nitrogen Oxides (NO _x)	80 ^b	610
Small-Diameter Particulate Matter (PM ₁₀)	80 ^b	510
Carbon Monoxide (CO)	550 ^c	5,706

Notes:

- a. Vehicular emissions are based on current-year (1998) emission factors. Emissions in future years are expected to decrease as a result of cleaner burning fuels and improved engine efficiency.
- b. The BAAQMD regards this amount of emissions as a threshold of significance for a regional impact.
- c. For carbon monoxide, the BAAQMD does not regard 550 lb/day as a threshold of significance, but rather, an indicator to perform the next level of micro-scale analysis.

Source: EIP Associates. Estimates are results of modeling using the California Air Resources Board's URBEMIS5 model.

Local Air Quality Impacts

Vehicle trips generated by the project could contribute to local ambient CO concentrations in the vicinity of the project. Table 8 presents existing, existing-plus-project, and Year 2015 cumulative CO concentrations at the project's critical intersections (Howard/Fourth; Howard/Fifth; Harrison/Fourth). These intersections are analyzed because they would experience the most congested conditions of the intersections analyzed in the project vicinity in Section III.E, Transportation, p. 119. As shown in Table 8, local CO concentrations would not exceed State or Federal one-hour or eight-hour standards under existing-plus-project conditions. CO impacts are therefore considered less than significant.

TABLE 8
LOCAL CO CONCENTRATIONS AT SELECTED INTERSECTIONS

Intersection	One-Hour Total CO Concentrations (ppm) ^b				Eight-Hour Total CO Concentrations (ppm) ^b			
	1-hr Standard ^a	Existing	Existing- plus- project	Cumulative 2015 ^c	8-hr Standard	Existing	Existing- plus- project	Cumulative 2015 ^c
Howard/Fourth	20 ppm	12.2	12.6	11.8	9 ppm	8.3	8.6	7.6
Howard/Fifth	20 ppm	10.2	10.6	9.6	9 ppm	7.1	7.4	6.0
Harrison/Fourth	20 ppm	11.3	11.5	11.2	9 ppm	8.2	8.3	7.2

Notes:

- a. The state one-hour standard is 20 ppm; the federal standard is 35 ppm. The most stringent standard is reflected in the table.
- b. Concentration are based on CALINE4 output which are adjusted with background CO concentrations
- c. Future concentrations are reduced compared with existing concentrations due to lower emissions factors which result from cleaner burning engines and improved control technology.

Source: EIP Associates

CUMULATIVE AIR QUALITY IMPACTS

The project's air pollutant emissions would combine with emissions from other planned development in the area and would contribute to the BAAQMD's inability to meet clean air standards. The Bay Area has been designated a non-attainment zone for ozone. The BAAQMD's 1997 Clean Air Plan presents strategies to offset pollution levels and attain air quality standards. Therefore, the proposed project, in conjunction with other past, present and reasonably foreseeable future projects, would incrementally contribute to an unavoidable significant air quality impact, if control strategies outlined in the 1997 Clean Air Plan are not adequately implemented. Continued local and regional growth not only contributes to increased regional emissions from increased traffic volumes but also increases congestion on roadways and increases localized pollutant concentrations. The reductions apparent in the local CO concentrations from existing to projected cumulative (2015) conditions are attributable to the stringent emission controls that have been, or will be, implemented for

motor vehicles and assumed for the 2015 calculations. As shown in Table 8, the project or cumulative development would not cause localized one-hour or eight-hour CO standards to be exceeded in the future.

Chapter IV, Mitigation Measures, pp. 178 - 181, identifies measures to improve intersection operations at Howard/Fourth and Howard/Fifth. Implementation of these measures, and other measures that would reduce vehicle travel, would reduce the less-than-significant project-related air quality effects. Those measures would also reduce project contributions to cumulatively significant air quality effects, but not eliminate that significant effect. Mitigation measures pertaining to construction impacts on air quality are presented in Chapter IV, p. 181.

NOTES - Air Quality

1. Bay Area Air Quality Management District (BAAQMD), Final San Francisco Bay Area Redesignation Request and Maintenance Plan for National Ozone Standards, September 1993; BAAQMD, Final San Francisco Bay Area Attainment Contingency Plan for National Carbon Monoxide Standards, September 1993.
2. BAAQMD, *1997 Clean Air Plan*, a supplement to the *1994 Clean Air Plan*, 1997 (adopted December 17, 1997).
3. BAAQMD, *1997 Clean Air Plan*, Volume IV, Appendix G. Source Inventory Description, p. G-5; BAAQMD *1997 Clean Air Plan*, Appendix D, p. D-1.
4. BAAQMD, *Ozone and Carbon Monoxide Attainment/Maintenance Plan*, 1993.
5. In July 1997, the U.S. EPA promulgated new standards for both ozone and particulate matter. There may be legislative or legal changes to the new standards. The U.S. EPA's new ozone standard is 0.08 ppm averaged over eight hours, rather than the existing 0.12 ppm averaged over one hour. Under the new ozone standard, it will be much more difficult for the Bay Area to achieve compliance. The former particulate standards limited concentrations of particulate matter less than 10 microns in diameter (PM₁₀). Due to increased concern over smaller particulate matter being responsible for health impacts, the new standards limit concentrations of particulate matter 2.5 microns or less in diameter (PM_{2.5}). The new standard will be implemented in 2000 as the attainment status is being based on 1997, 1998, and 1999 monitoring data.
6. BAAQMD, *BAAQMD CEQA Guidelines*, 1996, p. 50.
7. Caltrans, *Transportation Project-Level Carbon Monoxide Protocol*, August 1995. Under worst-case conditions, receptors are placed in locations of maximum exposure, and a stable atmospheric environment is assumed in which dispersion of CO concentrations is minimal. The receptors were sited

according to *CO Protocol* recommendations: for one-hour CO levels, receptors were located at 5 meters (16 feet) from the near edges of the nearest travel lanes; for eight-hour CO levels, at 7 meters (23 feet) from the near edges of the nearest travel lanes. If sensitive receptors were located at these minimum setback distances, they would experience the theoretical, projected maximum CO concentrations.

G. NOISE

The Initial Study found that construction noise and operational noise related to overall traffic increases generated by the project would not cause significant environmental effects and required no further analysis in the EIR. (See Appendix A, pp. A.18 - A.19.) The Initial Study found that loading activities on Jessie Street could create obtrusive noise that could disturb guests at existing hotels near the Project Site. Those effects are discussed in this section.

SETTING

NOISE MEASUREMENT STATISTICS

Sound is technically described in terms of loudness (amplitude) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Development of these scales has considered that the potential effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs.

- L_{eq} , the equivalent energy noise level, is the average acoustic energy content of noise during the time it lasts. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure, no matter what time of the day or night they occur.

- L_{dn} (or DNL), the day-night average noise level, is a 24-hour average L_{eq} with a 10 dBA “penalty” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for the greater nocturnal noise sensitivity of people.
- CNEL, the community noise equivalent level, is the same as a L_{dn} except that an additional “penalty” of 5 dBA is added to noise occurring during evening hours (7:00 p.m. to 10:00 p.m.).

Other noise measures give information on the range of instantaneous noise levels experienced over time. Examples include:

- L_{max} is the maximum instantaneous noise level experienced during a given period of time.
- L_{min} is the minimum instantaneous noise level experienced during a given period of time.
- L_n values indicate noise levels that were exceeded “n” percent of the time. For instance, L_{50} is the noise level that was exceeded 50% of the time during a measurement period (e.g., 30 minutes in an hour).
- SEL is the “sound exposure level” or “single event level.” It represents a noise level equivalent to the L_{eq} that would be measured over one second if the entire acoustic energy during a particular time period or specific noise event were “compressed” into that one second. This measure directly assesses the total acoustical energy of an event in a manner that is independent of the duration of that event.

SAN FRANCISCO NOISE ORDINANCE

The San Francisco Noise Ordinance regulates both construction noise and fixed-source noise. A general provision in the ordinance permits the City to regulate unnecessary, excessive, or offensive noise that is annoying to most people. This provision, summarized below from Sections 2915 and 2901.11, generally prohibits excessive noise from a stationary source:

- Unnecessary, excessive or offensive noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance of any reasonable person of normal sensitivity residing or working in the area is prohibited. A noise level which exceeds the ambient noise level by 5 dBA or more, as

measured at an affected receptor's property line, is deemed a *prima facie* violation of the Ordinance.

Police Code Section 2915 allows the Chief of Police to consider other factors in determining whether a violation of the Police Code exists.

SAN FRANCISCO GENERAL PLAN

The *San Francisco General Plan* Environmental Protection Element includes a section on Transportation Noise, as cars, trucks, and buses are the major source of noise in San Francisco's dense urban setting. The Transportation Noise section contains objectives to reduce transportation noise and to promote land uses that are compatible with the existing noise environment. The Element includes a Land Use Compatibility Chart that suggests "satisfactory" exterior noise levels for various land uses. For residential and transient lodging land uses, the maximum exterior L_{dn} considered "satisfactory, with no special noise insulation requirements" is 60 dBA.

Title 24 of the California Code of Regulations (CCR) establishes an interior noise standard of 45 CNEL in new residential buildings (hotels, motels, and multi-unit dwellings) with all doors and windows closed. While the Environmental Protection Element establishes the basic noise standards for San Francisco with respect to various land uses, it predates Title 24 requirements and is less stringent in many cases. Therefore, San Francisco relies on Title 24 requirements for the regulation of noise in new building construction.

EXISTING NOISE SOURCES

Truck Delivery Activities

Jessie Street between Fourth and Fifth Street serves as an access route for truck service to the Macy's furniture store occupying the Emporium Building as well as other hotel, restaurant,

office uses on the Fourth-Market-Fifth-Mission block. The primary noise-sensitive land uses in the immediate vicinity of the Project Site are the Hotel Milano at the northeast corner of Fifth and Jessie Streets and Howard Johnson's Pickwick Hotel at Fifth Street between Jessie and Mission. The Hotel Milano is six stories of rooms above a ground-level lobby and restaurant; the Pickwick Hotel building is seven stories above a lobby. Both hotels provide air conditioning in all guest rooms and operable windows in some guest rooms.

Along Jessie Street, existing intervening buildings generally screen traffic noise both from Market Street and Mission Street; a parking lot on the south side of Jessie Street about 200 feet east of Fifth Street provides open exposure to traffic noise from Mission Street. As is the case throughout much of downtown San Francisco, building facades along either side of Jessie Street enhance the reflection of noise sources near the site.

A noise survey was performed in the vicinity of the Project Site on July 14, 1998, from about 7:00 a.m. to 8:30 a.m., to sample ambient noise levels attributable to existing truck delivery activities along Jessie Street in the vicinity of these hotels. The morning period was surveyed to identify noise conditions when truck activity could disturb guests sleeping in the hotels. The goal was both to sample overall ambient exposure at the hotels and to assess the contribution of truck noise exposure to overall ambient, and to obtain reference noise levels for modeling. The data were intended to be used both as an example of existing delivery noise exposure and as a basis for projecting potential changes in truck delivery noise levels attributable to the project. A single 15-minute ambient noise measurement was performed on the south side of Jessie Street near the parking lot about 200 feet east of Fifth Street and directly across from the Hotel Milano. In addition, several recordings were made of noise levels from single or overlapping truck passby events, and to sample noise levels from an idling truck.

Measured noise levels on Jessie Street ranged from the high 50s dBA to the high 80s dBA. When noise exposure was limited to Mission and Fifth Streets traffic, noise levels from the

high 50s to high 60s dBA predominated. The highest levels were measured during truck passbys along Jessie Street at the locations described above. These passbys occurred at a distance of about 20 feet from the measurement locations. About six truck trips were observed on Jessie Street between about 7:30 and 8:30 a.m.

These noise measurements resulted in an overall L_{eq} of 66 dBA. Single medium-duty truck pass-by peak levels (L_{max}) ranged from 77 to 78 dBA, while SELs ranged from 84 to 86 dBA. Peak levels and SELs during overlapping passbys of two medium trucks, and during the overlap of a medium truck departure from a loading dock and a heavy truck passby were similar to those for the passbys of single medium trucks. A heavy truck passby resulted in an SEL of 95 dBA. That level is probably attributable to the inherent noise emission characteristics of the truck, the fact that it was accelerating past the measurement location, and the noise reflection of the buildings in the vicinity of the location of this measurement. Noise levels measured 50 feet from an idling heavy truck ranged from 69 to 70 dBA. Many trucks have back-up alarms, or "beepers" that sound when the truck is backing up, but the noise measurements on Jessie Street did not encounter such alarms. With open windows, L_{max} and SEL in upper floors of the two hotels would be in the 70 to 80 dBA range. Closed windows would lower these levels by 5 to 15 dBA.

IMPACTS

SIGNIFICANCE CRITERIA

San Francisco has no quantitative CEQA threshold for significance related to increases in noise levels. The San Francisco Noise Ordinance and the Environmental Protection Element Transportation Noise section, described on p. 168, provide some guidance in evaluating noise effects from the project but do not provide specific legislated criteria for acceptable noise levels and are not adopted CEQA significance thresholds. In general, project increases in

noise are modeled and presented quantitatively, but are evaluated qualitatively by asking the following questions:

- Would the increase in noise at any sensitive receptors be reasonably considered substantial?
- Would the increase in noise substantially affect the use and enjoyment of proximate areas or facilities?

METHODOLOGY

Project-related truck deliveries are likely to vary from day to day as well as over a year. For the purposes of this noise analysis, project-related delivery activity identified in Section III.E, Transportation, p. 119, was used. Noise exposure was estimated based on the measured single-event noise levels and reference levels for the audible backup alarms sometimes used by trucks, information about the ventilation and window configurations for guest rooms of the nearby hotels, and project loading dock and delivery truck access plans. The reflective effect of existing buildings on Jessie Street is considered similar to conditions with the project.

PROJECT EFFECTS

For the noise analysis, it was assumed that the development project would have 20% of its deliveries by heavy-duty trucks, and 10% of deliveries occurring before 7 a.m. (considered “nighttime” for purposes of calculating L_{dn}). These delivery trips would access the proposed loading dock (east of the Hotel Milano and Pickwick Hotels) from Mission Street via the realigned portion of Jessie Street (see Figures 2 and 3, pp. 35 and 36, respectively). It is assumed that the majority of trucks would turn west onto Jessie Street, stop, then back into the appropriate dock. Some trucks may head straight into the loading dock, then back into the docks. Some truck deliveries would replace existing truck deliveries to and from businesses displaced by the proposed project. As noted above, about six truck pass-bys on Jessie Street

were counted between 7:30 a.m. and 8:30 a.m., the equivalent of 12 trips (one loading operation generates two trips, to and from the site).

Noise conditions on Jessie Street near the loading docks would have higher peak levels and SELs as well as more frequent and extended project-related noise episodes than other areas for the following reasons:

- Most project delivery trucks would approach these sites twice during each delivery, once while pulling onto Jessie Street before heading into the loading docks and again while exiting the loading docks;
- In some cases, audible backup alarms would be activated as these trucks back into the loading docks, adding a distinctive, intermittent high-pitched tone to the lower-frequency and more continuous engine and exhaust noise from the truck;
- Brake squeal may also briefly contribute to overall truck noise levels in the vicinity of the docks;
- Trucks exiting the loading docks would be accelerating, generating higher engine and exhaust noise levels;
- Miscellaneous activities associated with product unloading at the docks, including the slamming of the truck doors, movement of containers, boxes or carts.
- Idling of trucks after they arrive or before they depart.

Noise levels from truck trips on Jessie Street near Fifth Street would range from maximums (L_{max}) of about the mid to high 80s dBA and Single Event Levels (SEL) up to the mid 90s dBA close to the loading dock, and up to the high 70s dBA and mid 80s dBA SEL near Fifth Street. (These single event levels are independent of the numbers of truck trips.) With closed windows, ground-floor noise levels within the hotels would range up to the high 50s dBA L_{max} and 50s to 60s SEL. Noise levels with open windows would be about 5 to 15 dBA higher. In hotel guest rooms on the upper floors, interior noise levels would be lower; because of reflection effects, the noise reduction would likely be about 4 dBA or less, or about 70 dBA to 75 dBA SEL with open windows.

With windows open, upper-floor guest rooms at the Hotel Milano or Pickwick Hotel would be subject to L_{\max} or SEL up to about 75 dBA. Together with the intermittent incidental loading noise (backup alarms, truck doors, brake squeal, etc.), these noise levels could disturb sleep. Sleep disturbance is more likely before 7 a.m. While loading noise would create brief speech interference impacts at other times of day, they are likely to be negligible near the middle of the day, when most guest rooms would not be expected to be occupied. The Hotel Milano and Pickwick Hotel rooms are already subject to vehicle traffic noise from Jessie Street, Fifth Street and Mission Street, with implementation of the project, maximum noise level would stay about the same but would occur with more frequency, increasing the L_{dn} , or average noise level. The increased duration of loading activity noise due to the project would not be considered significant, if proposed Mitigation Measures, relating to loading, scheduling and operations are implemented.

H. GROWTH INDUCEMENT

The project would include total development of about 1,575,000 gross square feet. The development would include 915,000 square feet of retail space, 200,000 square feet of entertainment uses and a 110,000-square-foot multiplex cinema. A 464-room hotel would occupy about 350,000 square feet. Employment at the site would increase to about 2,200. There are currently about 100 employees on the site.

It is possible that, if the project were successful, it could encourage similar development in the area. However, such development depends on a variety of other factors, including availability of developable sites, economic and demographic change, and trends in tourism, and growth-inducing effects cannot be directly linked to the project.

Increases in downtown retail and service employment would contribute to continued growth of local and regional markets for housing, goods and services. The level of demand would vary based on the success of the businesses which locate in the project and the nature of employment generated by those businesses. Some of the jobs associated with the uses proposed in this project, including retail and entertainment-related positions, would be part-time, seasonal, or temporary work. As such, some project employees could be taking second jobs (either for the individual or within a household), as opposed to representing entirely new employment in San Francisco, somewhat reducing demand for housing, goods, and services that would be associated with uses which generate primarily permanent, full-time jobs. However, any net increases in employment downtown would increase the demand for retail goods and services in the area. The project could intensify this demand by increasing the amount of employment on the site, thereby increasing demand for goods and services in the vicinity. Increases in employment downtown would also increase demand for business services, to the extent that the additional space would not be occupied by firms providing those services.

It is expected that some workers employed by businesses in the project development would want to live in San Francisco. Employment growth, however, would not be reflected directly in increased demand for housing and City services to residents, as some new jobs would be filled by individuals who already live and work in the City; who live in the City but previously either did not work, or worked outside the City; who live in surrounding communities; or by those unable to afford or locate housing in the City. New downtown workers would also increase demand for housing in other parts of the Bay Area. (See also Initial Study, Appendix A, pp. A.15-A.17, for further discussion of housing demand issues.)

The project would be built in a developed urban area, and no expansion to the municipal infrastructure not already under consideration would be required to accommodate new development and increase employment due to the project.

IV. MITIGATION MEASURES PROPOSED TO MINIMIZE POTENTIAL ADVERSE IMPACTS OF THE PROJECT

In the course of project planning and design, measures have been identified that would reduce or eliminate potential environmental impacts of the project. Some of these measures have been, or would be, adopted by the Redevelopment Agency or Forest City, its architects, or its other contractors and, therefore, are proposed as part of the project; some are under consideration. Implementation of some measures may be the responsibility of public agencies. Measures under consideration may be required by the City Planning Commission, the San Francisco Redevelopment Agency Commission, or the Board of Supervisors as conditions of project approval, if the project were to be approved, as long as the measures fall within the jurisdiction of the particular approving body.

Each mitigation measure and its status is discussed below. Measures from the Initial Study (see Appendix A, p. A.34) proposed as part of the project are indicated with an asterisk (*) and follow mitigation measures of topics discussed within the EIR. Mitigation measures identified in this EIR and in the Initial Study would be required by decision makers as conditions of project approval unless they are demonstrated to be infeasible based on substantial evidence in the record.

A. ARCHITECTURAL RESOURCES

Mitigation measures proposed to be included as part of the project

1. Prior to the demolition of most of the Emporium Building, the project sponsor would prepare historic documentation, to Historic American Buildings Survey (HABS) recordation standards, which would include the following:
 - A HABS outline report on the Emporium Building including descriptive and historical information.
 - Photographic documentation of the exterior of the Emporium Building. Such documentation would be provided to HABS standards of detail and quality for photographic documentation in 4x5 or 5x7 photographs and negatives.

- If, after consulting with the President of the Landmarks Preservation Advisory Board, it is determined that there are not sufficient existing historic drawings to document the building, then a full set of measured drawings of the Emporium Building would be prepared. Such drawings would be prepared according to HABS standards of detail and executed in ink on mylar. If sufficient existing drawings are available, these would be gathered and conserved.

Copies of the narratives, photographic documentation, and detailed notes on the measurement of the Emporium Building would be submitted to the City and County of San Francisco Planning Department prior to authorization of any permit that may be required for demolition of the Emporium Building by the Agency. Completed drawings would be provided to the Planning Department within 180 days after issuance of any required demolition permit.

In addition, the project sponsor would prepare and transmit the photographs and descriptions of the Emporium Building to the Landmarks Preservation Advisory Board, Bancroft Library at the University of California, Berkeley, the History Room of the San Francisco Public Library, and the Northwest Information Center of the California Historical Information Resource System.

The measure would reduce the adverse effect of demolition of most of the Emporium Building, but the loss of the Category I building would still be considered a significant impact.

B. WIND

Measures identified in this report

2. To eliminate the hazardous wind condition identified at one location on the rooftop parking level of the Fifth and Mission Garage, the project sponsor would provide shelter sufficient to reduce winds to below the hazard criterion and avoid a significant adverse wind effect. Such shelter could consist of landscaping, wind screens, fences or walls placed near major pedestrian corridors on the southern half of the garage. These wind-reducing elements would be aligned to provide maximum wind shelter for a west-northwest wind direction, which is the direction that contributes most to exceeding the hazard criterion. Wind sheltering elements should be porous (roughly 50% open).

C. TRANSPORTATION

Traffic measures identified in this report

3. To reduce or eliminate unacceptable conditions at nearby intersections, implement the following:

- a. Adjust the signal timing at the intersection of Fifth and Howard Streets to account for the additional westbound vehicles, or

Re-stripe the westbound approach of the intersection of Fifth and Howard Streets to change an exclusive through lane to a right-through lane.

With the first option, conditions would remain at LOS F, but vehicle delays would be reduced. With the second option, the level of service would improve to LOS D, reducing the project traffic impact to less than significant. However, the second option would lead to increased conflicts between bicycles traveling on the right side of the street and turning vehicles. In addition, double-turn lanes would also increase the possibility of conflicts between pedestrians and vehicles.

- b. Re-time the signal at the intersection of Fourth and Howard Streets. This measure would improve operating conditions at the intersection to LOS D. No changes to the existing all-pedestrian signal phases have been assumed as part of this measure.

- 4. To encourage the use of transit, thereby reducing traffic congestion, implement the following measures:

- a. Provide transit information at key locations within the Project Site. Consider offering transit passes, tickets and tokens for sale. The transit information would include transit maps and schedules for all transit carriers (including MUNI and regional carriers) as well as bicycle route maps.
- b. Provide transit information on advertising and on circulars or flyers advertising merchandise or events at the Project Site.
- c. Provide incentives to project patrons for transit use such as discounts for patrons showing proof of transit use.
- d. Provide incentives to project employees for transit use, such as participation in the Commuter Check, Rides For Bay Area Communities, and/or other similar programs.
- e. Maintain direct access to MUNI and BART from retail and entertainment uses during all hours when project and transit are in operation.

Implementation of measures 3 and 4 would reduce but not eliminate the significant congestion expected as a result of the project and cumulative development in the vicinity.

Circulation measures identified in this report

5. To improve passenger loading areas and pedestrian safety, to reduce vehicle queuing, and to reduce potential secondary impacts on transit operations and traffic congestion, implement the following measures:
 - a. Design the hotel porte-cochere at Mission Street near Jessie Street West to allow six cars to pick-up and drop-off hotel guests at the same time, plus a circulation lane.
 - b. Establish a white zone (indented curb eight feet wide) on the north curb of Mission Street east of the hotel porte-cochere exit for taxi queues and passenger loading and establish a white zone on Jessie Street West for project tour bus loading.
 - c. Maintain a sidewalk width of at least 10 feet on Mission Street for the length of the passenger loading zones (15 feet in front of the main store entrance) without reducing the current street width and street dimension. This measure would improve pedestrian LOS at this location from LOS F to D and maintain the existing west-bound transit-only travel lane in Mission Street.
 - d. Create an additional passenger loading zone on Jessie Street East to provide for drop-off and pick-up of patrons for the theaters, restaurants, entertainment and retail uses.
 - e. Ensure that proposed passenger loading bays on Mission Street do not overlap with the mid-block crosswalk to avoid conflicts between pedestrians in the crosswalk and vehicles picking up and dropping off at the proposed passenger loading bay on Mission Street.
 - f. Provide "Lot Full" and other informational signage near entrances to the Fifth and Mission Garage, to reduce queuing and unnecessary vehicle circulation.
 - g. Reduce the number of spaces rented on a monthly basis at the Fifth and Mission Garage to increase the number of spaces available for short-term use of garage during peak periods.
 - h. During peak periods such as holidays or major events at Moscone Center, station Parking Control Officers at congested intersections to direct traffic and ensure pedestrian safety.

Construction measures included in the project

6. During the construction period, construction truck movement would be permitted only between 9:00 AM and 3:30 PM to minimize peak hour traffic conflicts. The project

sponsor and construction contractor(s) would meet with ISCOTT to determine feasible mitigation measures to reduce traffic congestion, including transit disruption and pedestrian circulation impacts during construction of the project. In addition, the project sponsor would ensure that the construction contractor(s) coordinate with any concurrent nearby projects that are planned for construction or become known.

D. AIR QUALITY / CLIMATE

Mitigation measures proposed to be included as part of the project

- *7. The project sponsor would require the contractor(s) to spray the site with water during demolition, excavation and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soil, sand or other such material; and sweep surrounding streets during excavation and construction at least once per day to reduce particulate emissions.
- *8. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsors would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions from equipment that would be in frequent use for much of the construction period.

E. NOISE

Mitigation measures proposed to be included as part of the project

- *9. The project sponsor would require project construction contractor(s) to predrill piling and footing holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. The project sponsor would also require that contractors limit pile driving activity to result in the least disturbance to neighbors.
- 10. The project sponsor would implement guidelines for noise abatement procedures at the loading dock. Project truck deliveries and related loading/unloading activities at the loading docks would only be allowed to occur within the loading dock with the loading dock doors closed before 6 a.m. and after 8 p.m. on weekdays and before 7 a.m. and after 7 p.m. on weekends and legal holidays. In addition to the above-described time limitations, such measures might include the following:

- When feasible, trucks would turn into the loading dock rather than turning onto Jessie Street before backing, thereby reducing the extent of impact to hotel residents during truck arrivals and perhaps reducing the use of backup alarms.
- The loading area door would be kept closed, to the extent feasible, to limit external noise from loading activities.
- All unnecessary idling of truck engines would be avoided.
- Acceleration on Jessie Street would be limited to reduce engine and exhaust noise.

F. GEOLOGY

Mitigation measures proposed to be included as part of the project

- *11. One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The project sponsor and its contractors would follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponsor would ensure that the construction contractor conducts a pre-construction survey of existing conditions and monitors the adjacent building for damage during construction, if recommended by the geotechnical engineer.
- *12. If dewatering were necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based on this discussion, the soils report would determine whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, the Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments would be used to monitor potential settlement and subsidence. If, in the judgement of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor.

If dewatering were necessary, the project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

- *13. The project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems would be modified as necessary in the event that substantial movements are detected.

G. WATER QUALITY

Mitigation measures proposed to be included as part of the project

- *14. If dewatering were necessary, the project sponsor would follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.

If dewatering were necessary, groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.

- *15. The project sponsor would require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

H. HAZARDS

Mitigation measures proposed to be included as part of the project

- *16. A hazardous materials and wastes survey would be conducted in the existing buildings prior to demolition. Any asbestos and lead-based paint identified in the buildings would be abated by a licensed abatement contractor prior to demolition of the buildings. The contractor would follow the City and County of San Francisco Asbestos and Lead-Based Paint Master Abatement Specification.

The project sponsor would follow all required federal, state and local asbestos removal regulations and notification processes required under the permit review process.

All potential PCB-containing equipment and/or fixtures in the existing buildings would be removed prior to demolition and incinerated at a licensed disposal facility. Any mercury vapor lighting would be removed and recycled prior to building demolition.

Prior to site excavation, the project sponsor would submit a site mitigation plan which would discuss the proposed movement and excavation of site soils, dust control measures and site soils disposal measures. The dust control plan would be implemented on the site and would include measures to keep site soils moist in order to prevent particulates from site soils in the air.

Prior to Project Site excavation, the project sponsor would conduct site investigation on the parcels containing the existing buildings and would submit site investigation reports to the Department of Public Health, Environmental Health Management Section (DPH, EHMS) for review.

The site investigation reports would contain the following:

- a. A detailed project description, including discussion on construction activities, number of stories of the project building, depth of basement level, amount of the soil to be disturbed and Environmental Health Management Section (DPH, EHMS)
- b. Depths and locations of trenching for utilities, building foundation, elevator pits, and other project facilities and equipment below ground surface.

Should hazardous materials and/or wastes be found, the project sponsor would submit a site mitigation plan that would include management of contaminated soils. These measures would include disposal of soils off site at an approved facility or encapsulation site if appropriate.

All workers involved in removal of hazardous waste soils would follow proper decontamination procedures as defined in a site-specific/project-specific health and safety plan which would be required to be submitted for review and approval by the City and County of San Francisco Department of Public Health, Environmental Health Management Section (DPH, EHMS) at least two weeks before any soil on the site is moved. The Health and Safety Plan would be prepared by a safety officer professional with appropriate certification and training. The certified site safety officer would train the project workers on the handling of any hazardous materials and wastes that may be encountered. In addition, the credentials of the certified site safety officer would be submitted to the DPH, EHMS for verification.

Construction monitoring by a trained hazardous waste specialist would be conducted throughout excavation activities to assist in identification of previously undiscovered hazardous materials and waste issues. Remediation of these previously undiscovered materials and waste would be addressed as they are discovered and identified.

The project sponsor and project contractor would comply with all provisions of the site mitigation plan as approved by the Department of Public Health, Environmental Health Management Section (DPH, EHMS).

I. CULTURAL RESOURCES

Mitigation measures proposed to be included as part of the project

- *17. The project sponsor has agreed to retain the services of an archaeologist. The archaeologist would conduct a pre-excavation testing program to better determine the probability of finding cultural and historical remains. The testing program would use a series of mechanical, exploratory borings or trenches or other testing methods determined by the archaeologist to be appropriate.

If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the Environmental Review Officer, with a copy to the project sponsor and the San Francisco Redevelopment Agency. If the archaeologist determines that further investigations or precautions are necessary, he or she would consult with the Environmental Review Officer, and they would jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

These additional measures would be implemented by the project sponsor and could include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are findings of significance, would result in a written report to be submitted first and directly to the Environmental Review Officer, with a copy to the project sponsor and the San Francisco Redevelopment Agency. During the monitoring program, the project sponsor would designate one individual on site as its representative. This representative would have the authority to suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources if they are encountered.

If evidence of cultural resources of potential significance were found during the monitoring program, the archaeologist would immediately notify the Environmental Review Officer, and the project sponsor would halt any activities that the archaeologist and the Environmental Review Officer jointly determine could damage such cultural resources. Ground-disturbing activities that could damage cultural resources would be suspended for a total maximum of four weeks over the course of construction.

After notifying the Environmental Review Officer, the archaeologist would prepare a written report to be submitted first and directly to the Environmental Review Officer, with a copy to the project sponsor and the Redevelopment Agency, which would contain an assessment of the potential significance of the find and recommendations for what measure should be implemented to minimize potential effects on archaeological resources. Based on this report, the Environmental Review Officer would recommend specific additional measures to be implemented by the project

sponsor. These additional measures could include a site security program, additional on-site investigations by the archaeologist, or documentation, preservation, and recovery of cultural material.

Finally, the archaeologist would prepare a report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration or recovery program is to be conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the Environmental Review Officer for review. Following approval by the Environmental Review Officer, copies of the final reports would be sent by the archaeologist directly to the project sponsor, and the San Francisco Redevelopment Agency, the President of the Landmarks Preservation Advisory Board, and the California Archaeological Site Survey Northwest Information Center. Three copies of the final archaeology reports would be submitted to the Planning Department accompanied by copies of the transmittals documenting its distribution.

V. OTHER CEQA CONSIDERATIONS

A. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

In accordance with Section 21100 (b)(2)(A) of the California Environmental Quality Act (CEQA), and Section 15126(b) of the State CEQA Guidelines, the purpose of this chapter is to identify significant impacts that could not be eliminated or reduced to an insignificant level by implementing mitigation measures included as part of the project or by other mitigation measures that could be implemented, identified in Chapter IV, Mitigation Measures, p. 177. This chapter is subject to final determination by the City Planning Commission and the San Francisco Redevelopment Agency Commission as part of their certification process for the EIR. If necessary, this chapter will be revised in the Final EIR to reflect the findings of the City Planning Commission and the Redevelopment Agency Commission.

The proposed project would preserve and restore the Market Street facade but remove the remainder of the Emporium Building's exterior walls, including the Jessie Street facade. The dome and a portion of the rotunda would be retained, but raised up to 90 feet. The remainder of the interior of the building would be rebuilt. This extensive reconfiguration of the Emporium would result in the loss of an important San Francisco resource that represents the evolution of the department store building type in the City. The building is architecturally significant, as indicated by its Downtown Plan and Planning Code Article 11 Category I rating, and meets the definition of an historical resource in CEQA Section 21084.1. The demolition and reconstruction of most of the building and alteration of many of its key architectural elements, such as the dome and rotunda, would constitute a significant adverse impact.

Mitigation measures related to cumulative impacts for the intersection at Howard and Fourth would only improve LOS at this intersection from F to E, resulting in an unavoidable significant impact. Increased delays at analyzed intersections near freeway ramps, such as

Fourth and Harrison, and access routes would contribute to broader adverse cumulative traffic impacts throughout the South of Market area in 2015 as drivers seek alternative routes. Mitigation measures could reduce but not eliminate these impacts.

The future cumulative parking shortfall of about 1,880 spaces in the vicinity of the project would cause some drivers to drive to more parking locations in search of parking, and would cause queues at parking garage entrances that would disrupt traffic circulation at nearby intersections more frequently than now occurs. These parking conditions, along with cumulative increases in pedestrian volumes and additional driveways and passenger loading areas on Mission Street, would also contribute to significant localized congestion. Mitigation measures would reduce but would not eliminate these congestion impacts.

Project-related emissions of NO_x and PM₁₀ would exceed BAAQMD significance thresholds and would result in a significant, unavoidable impact on regional air quality. According to the BAAQMD CEQA Guidelines, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact; therefore, the project as proposed would have both a project and cumulative unavoidable significant impact on air quality.

B. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Because the proposed project includes amendments of the *San Francisco General Plan* and the *Yerba Buena Redevelopment Plan*, Public Resources Code sections 21100(b)(2)(B) and 21100.1(a), and State CEQA Guidelines Sections 15126(e) and 15127 require that this Draft EIR identify significant irreversible environmental effects or changes that could occur if the proposed project were implemented. These changes would occur in the area of architectural resources, transportation, and cumulative air quality, as discussed above on pp. 187-188.

The project would intensify development at the site consistent with development in San Francisco's urban environment. Although not irreversible, the effects of this development would be difficult to change in the short-run. The project would commit future generations to the same land uses for at least the life of the project. Implementing the project would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline or diesel fuel for construction equipment and automobiles, and during demolition, construction and ongoing use of the site. Because the project would comply with California Code of Regulations Title 24, it would not use energy in a wasteful manner (see the discussion of Energy in the Initial Study, Appendix A). The consumption or destruction of other non-renewable or slowly renewable resources would also result during demolition, construction, occupancy, and use of the site. These resources include, but are not limited to, lumber, concrete, sand and gravel, asphalt, masonry, metals, and water. The project would also irreversibly use water and solid waste landfill resources.

However, the project would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully.

VI. ALTERNATIVES TO THE PROPOSED PROJECT

This chapter identifies alternatives to the proposed project and discusses environmental impacts associated with these alternatives. The project decision-makers could approve an alternative instead of the proposed project, if that alternative would reduce or eliminate significant impacts of the project and is determined feasible. The determination of feasibility will be made by project decision makers on the basis of substantial evidence in the record, which shall include, but not be limited to, information presented in the EIR and in comments received on the Draft EIR.

The following alternatives are evaluated in this chapter: a No-Project Alternative; a Reduced Development (No Hotel) Alternative; and two Preservation Alternatives retaining varying portions of the existing Emporium Building. Any of the alternatives, as well as the proposed project, could be implemented under City controls without the proposed amendment to Redevelopment Plans but would require many of the other project approvals, such as street vacation and rezoning of height districts. The *Redevelopment Plan* and Design for Development are implementing mechanisms, while the development program and building envelope generate actual physical impacts. The project and alternatives would still result in the physical effects described in this EIR.

No alternative sites have been identified within downtown San Francisco where the project could be constructed, the project sponsors' objectives could be met, including reuse of the Emporium Site and preserving major identifying elements of the Emporium Building, and the project's contribution to cumulatively significant effects would be eliminated.

A. ALTERNATIVE A: NO PROJECT

DESCRIPTION

The No-Project Alternative would entail no change to the site. The proposed project would not be built. The Emporium Building would not be demolished and none of its existing architectural features would be altered or relocated. The building would become vacant in 1999. It is an unreinforced masonry building (UMB) and does not comply with present building codes. None of the buildings on the site would be demolished, and Jessie Street would not be realigned. The Downtown Plan would not be amended to include the Project Site in 135-X, 200-X, and 340-X Height and Bulk Districts. The San Francisco Redevelopment Agency and the City would not amend the *Yerba Buena Center Redevelopment Plan* to include the Project Site in the *Yerba Buena Center Project Redevelopment Area*. The Project Site would not be governed by the *Yerba Buena Center Redevelopment Plan* and *Design for Development* documents.

IMPACTS

If the No-Project Alternative were implemented, none of the impacts associated with the project would occur. The environmental characteristics of this alternative would be generally as described in the environmental setting sections of Chapter III. Land use, urban design, and shadow and wind conditions would not change.

This alternative would retain the Emporium Building, a Category I Significant Building in the Downtown Plan and Planning Code Article 11, in its present condition. The building would become vacant and would deteriorate unless a new tenant or compatible reuse could be found. This alternative would avoid the significant adverse effect of demolition of most of the Emporium Building, and would allow options for future reuse of the building. These options could include full occupancy of the Emporium Buildings for retail uses, as was the case until 1996.

Future transportation and air quality conditions described as conditions with cumulative development would occur (see Chapter III, p. 47), but without the project. Therefore, this alternative would not contribute to cumulative transportation and air quality impacts.

B. ALTERNATIVE B: REDUCED DEVELOPMENT (NO HOTEL)

DESCRIPTION

The Reduced Development (No Hotel) Alternative would include all elements of the proposed project, including demolition of most of the Emporium Building and alteration of some of its significant architectural features. The Market Street facade would be retained; the dome would be raised to a new location. It would include development of 915,000 square feet of retail and restaurant uses, and 200,000 square feet of entertainment uses, but would not include a hotel. Without a hotel tower as proposed, the new building's height would be about 138 feet along Mission Street, as compared to approximately 280 feet with Hotel Variant 1 and approximately 300 feet with Hotel Variant 2. With this alternative the General Plan would not be amended to include the Project Site in a 340-X Height and Bulk District, but would be amended to include the first 100 feet from Market Street of the project in a 135-X Height and Bulk District and the remainder in a 200-X Height and Bulk District. As with the proposed project, the San Francisco Redevelopment Agency and the City would consider amendments to the *Yerba Buena Redevelopment Plan* and *Design for Development* document to include the Project Site.

IMPACTS

This alternative would change land use at the site. The alternative would include demolition of six existing structures and would develop the site with retail and entertainment uses more intensely than what now exists at the site. Overall, land use conditions would change in a similar manner as with the project.

As with the proposed project, this alternative would demolish most of the Emporium Building and alter its most important architectural features, including most of the interior structure, the rotunda, exterior walls, and would dismantle and raise the dome. Because the Emporium Building is a Category I Significant Building and meets the definition of an historical resource, this alternative, as with the project, would cause a significant adverse impact on architectural resources.

This alternative would not include a hotel tower; new construction would have a seven-story, 138-foot-tall building on the Emporium Site. The relocated dome with this alternative would be visible from some locations near Market Street. Upper floors of the hotel tower would not be part of views with this alternative. In views from Mission Street, new views with this alternative would include the seven-story building, and the proposed pedestrian bridge to the Fifth and Mission Garage. Overall, this alternative would be less prominent in short-range and longer range views, compared to the proposed project.

The Reduced Development Alternative, without a hotel tower, would reduce new shadows compared to the proposed project. In particular, the amount of new shadow on portions of Jessie and Mission Streets would be reduced. As with the proposed project, this alternative would not add significant shadows to open space in the vicinity. Wind effects for this alternative were analyzed. This alternative would reduce the number of ground-level locations which would exceed the comfort criterion from 11 or 10 of 30 with Hotel Variant 1 or Hotel Variant 2, respectively, to 8 of 30 with this alternative. In all but four study locations, wind speeds would be within two miles per hour of those for the project. The remaining four locations would have wind speeds three or more miles per hour less than with the project. Of the 32 locations studied, 16 (which include two locations on the roof of the Fifth and Mission Garage) would have wind speeds at least one mile per hour slower than with the project, 13 locations would remain the same, and three locations would increase wind speeds by one to two miles per hour. Unlike the proposed project, which would cause an exceedance of the wind hazard criterion at one location on the roof of the Fifth and Mission Garage (with either Hotel Variant 1 or Hotel Variant 2), this alternative would not

cause an exceedance of the wind hazard criterion at any location. Thus, the reduced development alternative would avoid a significant adverse effect on wind conditions that would occur with the project.

Of the approximately 7,000 p.m. peak hour person-trips that would be generated by the project, about 310 would be from the hotel use (see Table 2, p. 131). This alternative would eliminate those trips, an approximate 5% reduction in peak-hour vehicle trips. Total peak-hour trips with this alternative would still result in existing-plus-project conditions at Howard/Fifth changing from LOS C to LOS F and at Howard/Fourth from LOS C to LOS E. As with the project, year 2015 cumulative effects would change the Howard/Fourth LOS from E to F; Howard/Fifth would remain at LOS F. This alternative would therefore cause significant adverse impacts on traffic conditions, as with the project. The project would contribute to existing future cumulative LOS F conditions at Harrison/Fourth. Chapter IV, Mitigation Measures, p. 177, identifies potential improvements that could mitigate traffic conditions at these two intersections. These measures include restriping the westbound approach to the Howard/Fifth intersection, which would improve existing-plus project or existing-plus-no-hotel-alternative LOS to D, and retiming the signal at the Howard/Fourth intersection, which would improve LOS to D; LOS D would be an acceptable condition. For year 2015 cumulative conditions, both intersections would operate at LOS F. Striping the westbound approach to the Howard/Fifth intersection would result in LOS D; cumulative traffic impacts at Howard/Fourth would result in a significant unavoidable impact with no feasible mitigation.

Like the project, this alternative would not create local CO emissions in excess of federal or state standards; the alternative would generate emissions of nitrogen oxides and particulate matter that would contribute to cumulative air quality effects that would be significant.

Project loading activities would increase noise levels on Jessie Street adjacent to the existing hotels, with effects that would be similar to those described for the project.

PRESERVATION ALTERNATIVES

As noted in Section III.B, p. 61, the proposed project would have a significant adverse impact on the Emporium Building, a Category I Significant building, which meets the definition of an historical resource. The proposed project would demolish most of the building and alter important architectural features, including most of the interior structure, most of the rotunda, and most of the external walls. The Market Street facade would be retained and rehabilitated and the dome would be raised by about 90 feet. Proposed EIR alternatives evaluated below were formulated by Architectural Resources Group (ARG) as part of the EIR to comply with the *Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* (the Standards) wherever feasible.¹

The Standards are the primary document used by a broad range of government entities and private sector organizations to plan and evaluate the treatment of historic buildings. The introduction to the Standards states that they are "neither technical nor prescriptive, but are intended to promote responsible preservation practices. . . For example, they cannot, in and of themselves, be used to make essential decisions about which features of the historic building should be saved and which can be changed." In other words, the Standards provide a philosophical framework, and are intended as a planning and guidance tool. Preservation Alternative 1 has been developed by ARG to meet the Standards fully. Preservation Alternative 2 strives to meet the Standards, but could be interpreted as not achieving this goal fully, because it would include more alteration of the Jessie Street frontage and more internal alterations than Preservation Alternative 1.

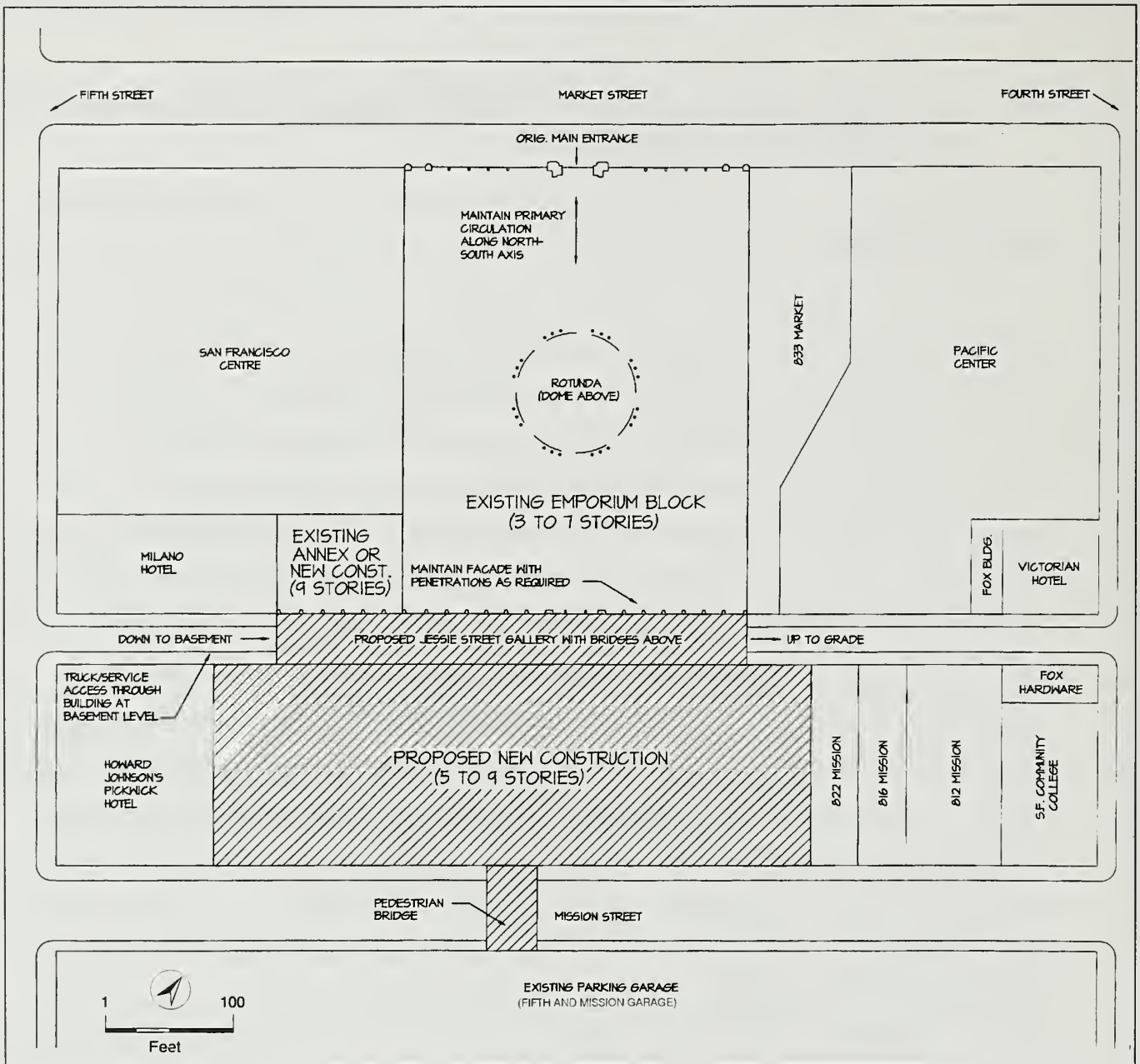
C. ALTERNATIVE C: PRESERVATION ALTERNATIVE 1, CONSERVATIVE APPROACH

DESCRIPTION

Preservation Alternative 1 would preserve the exterior and interior of the Emporium Building, with new construction allowing for appropriate use of the historic building and development of the adjacent portions of the Emporium. The alternative differs from the proposed project in its use of the Emporium, access to the site, the treatment of the Emporium dome and other historic features, the maintenance of the Jessie Street, the absence of construction above the existing Emporium Building, and the mass and height of new construction south of the Emporium Building between Jessie and Mission Streets.

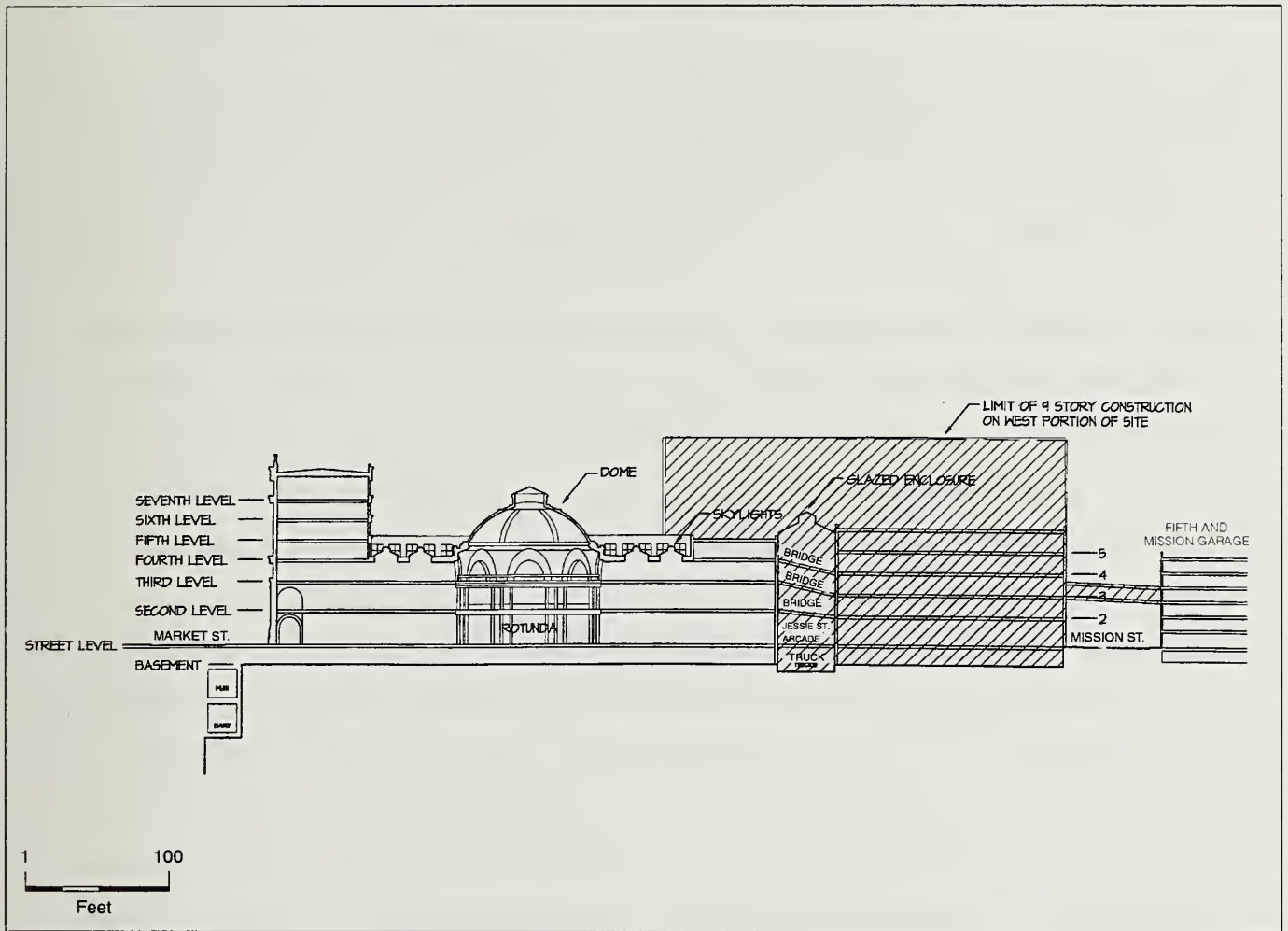
Preservation Alternative 1 would be a conservative preservation approach to allow the continued use of the Emporium Building, and would apply rehabilitation treatments to those areas and features that are less important and that would require alteration for contemporary use. The Standards note that “A property will be used as it was historically or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships,” and “New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.”

The Emporium Building would be seismically upgraded using methods that would not alter its most important features, particularly the Market Street facade, and would preserve most of open bay interior spaces (see Figures 25 and 26). As with the proposed project, the Market Street facade would be preserved and restored to its 1908 appearance. The blocked windows at the mezzanine level would be reopened and reglazed; historic street entrances would remain or be restored to their original locations; entrances added over time would be removed and replaced with windows to match the original storefronts; parapets would be



SOURCE: Architectural Resources Group

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 25 PRESERVATION ALTERNATIVE I - PLAN



SOURCE: Architectural Resources Group

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT

FIGURE 26 PRESERVATION ALTERNATIVE I - NORTH-SOUTH SECTION

strengthened; and significant missing or compromised features, including the two-story arcade and window displays along Market Street, would be restored, where adequate historic documentation exists.

At roof level, the fifth-floor elements above the east and west wings and other miscellaneous rooftop structures and equipment added after 1908 would be removed. With the exception of the seven-story Market Street tower, all construction above the fourth-floor level would be demolished or rehabilitated. There would be no new construction, other than necessary mechanical work, above the existing fourth-floor roof level.

The interior of the Emporium Building would be preserved as an open bay retail space, with its existing floor levels and column layout remaining intact. Ideally, this would be a single-tenant space, representing the historic use of the building. Any necessary subdivisions of floor space would be done so as not to visually compromise the openness and the symmetrical, axial organization of the interior. In addition, the floor levels would be retained to insure floor and ceiling heights match existing window and door openings. Interior changes with this alternative would include the removal of non-historic elements and the rehabilitation of existing or addition of new code-compliant elevators, escalators, and exits. The single remaining 1936 escalator would be preserved and mechanically updated at its current location. The dome and rotunda would be preserved at their original location and original height. The dome would be restored: infill panels and later glazing at the rotunda would be removed and its original features would be restored to the extent that historic documentation is available and in compliance with applicable building codes. The four original (pre-1908) skylights north and south of the dome would be restored. Access to the San Francisco Centre building (in place at the time the Emporium closed in 1996) would be developed to complement the Emporium's historic interior. All new interior work would be clearly differentiated from original features and finishes.

The mechanical system would be rehabilitated or replaced to eliminate its impact on historic features, particularly the dome, which has had heating and ventilation ducts passed through

several openings. New mechanical systems and support facilities that cannot be incorporated into the Emporium Building without serious impact on the historic fabric of the building would be located in the new construction on the site.

New construction would occupy the site south of Jessie Street through to Mission Street, and would include Lots 10, 12, 13, 14, 15, 17, 18, and 33 (see Figures 25 and 26, pp. 198 and 199, respectively). Jessie Street would be maintained as a thoroughfare between Fourth and Fifth Streets; it would be depressed to pass below the site at basement level for service access, allowing pedestrian use of Jessie Street at street level. Jessie Street itself would be roofed over to become an enclosed connector space between the Emporium Building and new construction. The Jessie Street facade of the Emporium Building would be preserved as the demising (separating) wall of the original building, but would be altered to allow the development of visual and physical connections between the old and new portions of the project. The existing pedestrian bridges over Jessie Street would be removed. Substantial openings in the Jessie Street facade would occur at street level and above; new pedestrian bridges would provide continuity across the site and accommodate any changes in floor levels between the new construction and the Emporium Building.

The existing structures on Lots 10, 12, 13, 14, 15, 17, 18, and 33 between Jessie and Mission Streets would be demolished. The new construction on this portion of the Emporium Site would be designed to be compatible with the historic form, features, and detailing of the Emporium Building. In addressing this compatibility, the new construction would relate primarily to the Jessie Street facade of the Emporium Building and to the general character of the surrounding neighborhood. Its size and scale would be dictated by the height and massing of the Emporium Building. The structure would occupy the entire site from Jessie Street to Mission Street and would be five stories high (the approximate height of the Jessie Street facade of the Emporium Building); the western portion of the site, which would connect to the Emporium Annex site, would rise to a height comparable with that of the Annex, about nine stories. New construction would meet the existing 160-F Height and Bulk District designation on this portion of the site.

The interior of the 1916 Emporium Annex on Lot 38 would be demolished and rebuilt with floor levels adjusted to facilitate access to the Emporium Building. The Jessie Street facade of the Annex would be preserved and treated similarly to the adjacent Emporium facade.

Bridges would also connect it with the new construction south of Jessie Street.

Service access to the site would be at basement level by way of Jessie Street, entering from Fifth Street and exiting via Fourth Street. The 350-foot east-west dimension would be sufficient for truck ramps; the ramps and loading area would occupy part of the ground floor and basement areas, and would reduce basement retail uses proposed with the project.

Pedestrian access to the site would be via the original Market Street entrances and from new Mission Street entrances at street level. There could also be a pedestrian bridge to the garage across Mission Street, as with the proposed project. Code-compliant disabled access would be provided to all areas of the existing and new portions of the site, while avoiding undue impact on the historic Market Street facade.

With Preservation Alternative 1, the floor area of the Emporium Building would be approximately 480,000 gross square feet; the reconstruction of the Annex site would provide approximately 72,000 gross square feet; Jessie Street and the upper-level bridges would be from 15,000 to 20,000 square feet and the new construction south of Jessie Street would be from 480,000 to 520,000 gross square feet, for a total floor area of from about 1,047,000 to 1,092,000 gross square feet, as compared to about 1,575,000 gross square feet with the project. These totals include full basements, and excludes proposed modifications to Jessie Street. The range would be dependent upon the floor area of the west portion of the new addition and the extent of construction over Jessie Street. Also, if floor-to-floor heights in the reconstructed Annex and the new construction differ substantially from those of the Emporium Building, the number of stories, and therefore the overall floor area, may vary. For purposes of evaluation of this alternative, floor area is assumed to be 1,092,000 gross square feet.

IMPACTS

Preservation Alternative 1 would change the intensity of land use at the Project Site, but to a lesser degree than the proposed project. The site would be developed with new retail and entertainment uses. Jessie Street would be maintained as a connector between Fourth and Fifth Streets, but would be depressed to allow service access below grade.

This alternative would preserve and rehabilitate the Emporium Building consistent with the *Secretary of Interior's Standards*. New construction adjacent to and connected with the Emporium would be designed to complement the Emporium Building. It would avoid the significant adverse impact which would result from demolition and extensive alteration of the Emporium Building, as proposed in the project.

This alternative would reduce the height and bulk of the building, including removal of some or all of the construction above the fourth-floor level, excepting the seven-story Market Street tower. New construction would relate primarily to the Jessie Street facade of the Emporium Building and would be limited to five stories. This alternative would limit new development on the Emporium Site to about five to nine stories; the dome would not be relocated. From Market Street, views of this alternative would be similar to existing conditions, with a rehabilitated Market Street facade of the Emporium Building. The relocated dome and upper floors of the hotel tower that would be visible with the proposed project from some locations near Market Street would not be seen with this alternative.

From Mission Street, this alternative would replace views of existing buildings and parking on the Emporium Site, ranging in height from one to six stories, with a new building up to about five stories to nine stories and about 160 feet. Compared to the proposed project, with views of new construction ranging up to about 300 feet above Mission Street, this alternative would be less prominent in short-range and long-range views.

This alternative would reduce shadows compared with the proposed project. As with the proposed project, this alternative would not add significant shadow to open space in the vicinity. This alternative would be expected to have similar effects on wind conditions as the Reduced Development Alternative discussed above, reducing the number of ground-level locations that exceed the comfort criterion. Because of the reduced size, this alternative would not be expected to cause one location on the roof of the Fifth and Mission Garage to exceed the hazardous wind criterion, a significant adverse effect of the proposed project.

The reduced space with this preservation alternative, compared with the proposed project, could reduce peak hour trips by about 30%. The reduction in peak-hour trips would result in similar existing-plus-project intersection effects as with the project, with one exception. At the Howard/Fourth intersection, existing-plus-alternative conditions would be LOS D, an acceptable level, compared to LOS E with the proposed project. This would avoid a significant effect of the project. Cumulative traffic effects with this alternative would be the same as with the proposed project.

Like the project, this alternative would not create local CO emissions in excess of federal and state standards; it would contribute other emissions to cumulative air quality effects that would be significant. Project loading activities would increase noise levels on Jessie Street adjacent to the existing hotels, with effects that would be similar to those described for the project.

D. ALTERNATIVE D: PRESERVATION ALTERNATIVE 2, MODIFIED APPROACH

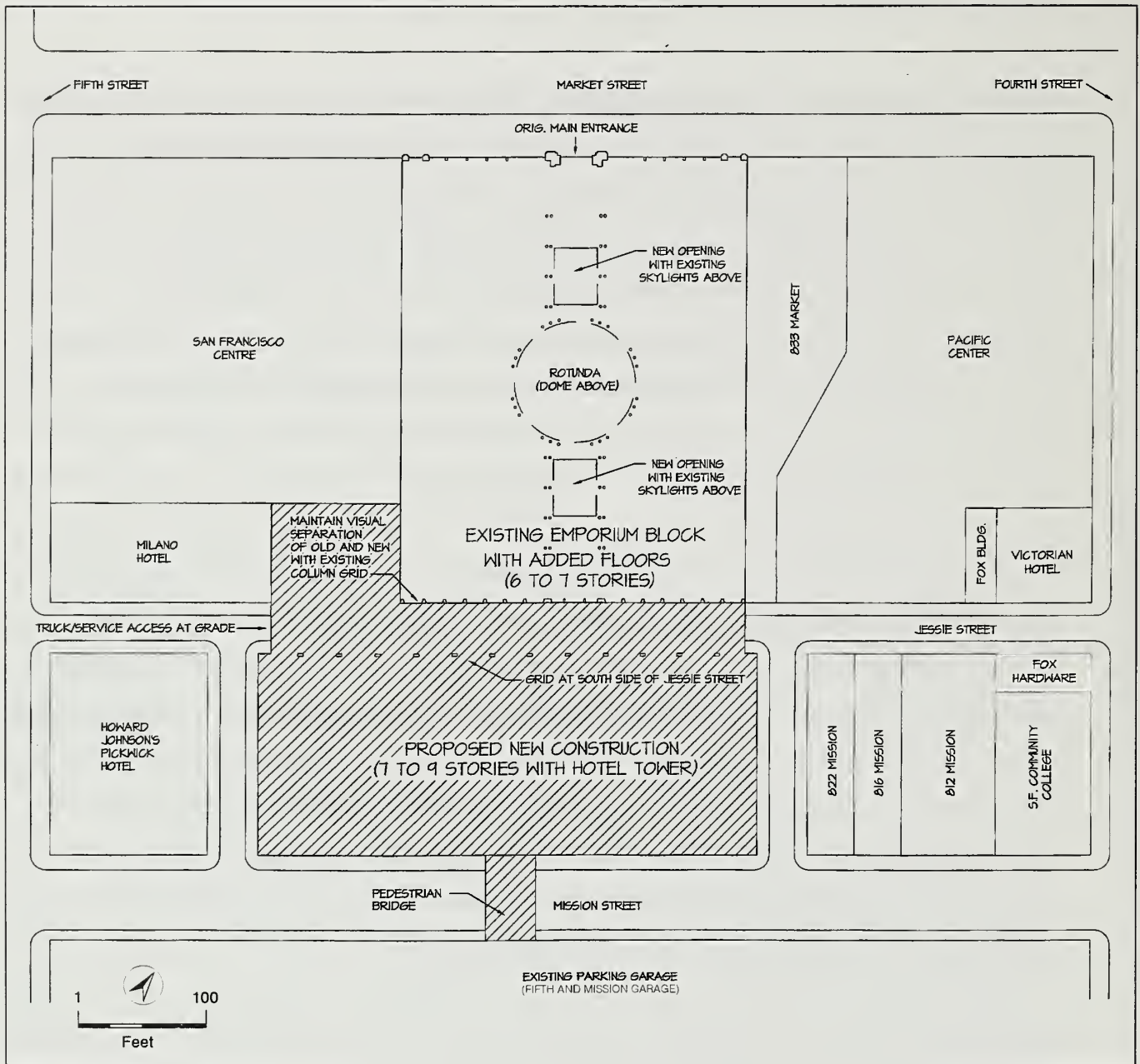
DESCRIPTION

Preservation Alternative 2 would preserve the most significant exterior and interior features of the Emporium Building and adapt the building for new retail use, with the complementary development of the remaining portion of the Emporium. This alternative would be similar to

the proposed project in its use of the site, development above Jessie Street, and the addition of new floors above the existing Emporium Building (see Figures 27 and 28). It would differ from the proposed project in its treatment of the Emporium dome and other historic features, the extent of the new construction above the Emporium, and the mass and height of the new construction along Mission Street. Preservation Alternative 2 would apply preservation treatments to the most important historic features of the Emporium Building: the Market Street facade and certain interior features, with careful rehabilitation and alteration of the remainder of the building. Adjacent new construction would be undertaken with fewer restrictions than with Preservation Alternative 1.

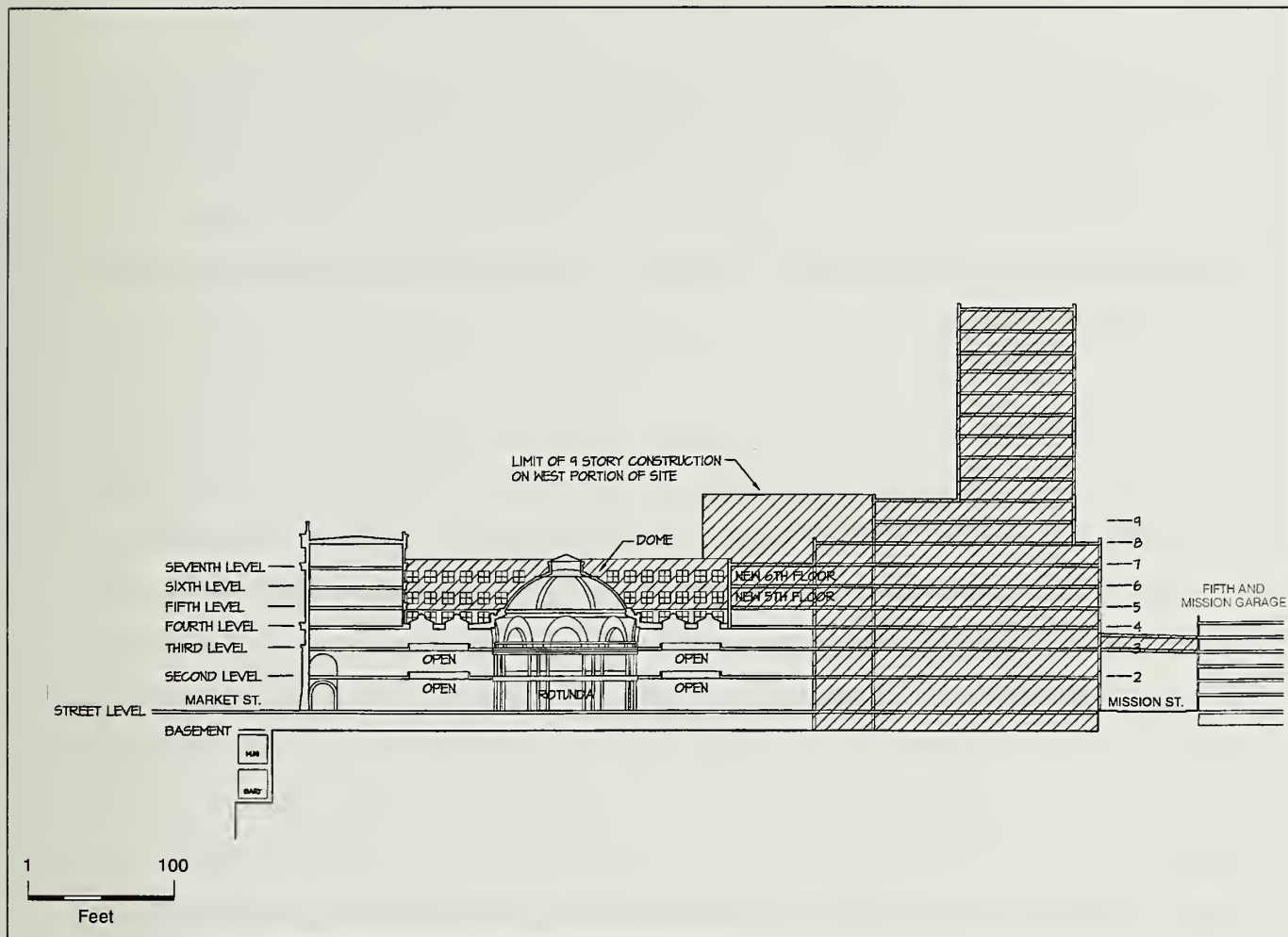
The Emporium Building would be seismically upgraded using methods that would not alter its significant features, particularly the Market Street facade and the important interior spaces. The Market Street facade would be preserved and restored to its 1908 appearance. The blocked windows at the mezzanine level would be reopened and reglazed; historic street entrances would remain or be restored to their original locations at the center and each end of the facade; entrances added over time would be removed and replaced with windows to match the original storefront; parapets would be strengthened; and important missing or compromised features, including the arcade and window displays along Market Street, would be restored, where adequate historic documentation exists.

At roof level, the fifth-floor elements above the east and west wings and other miscellaneous rooftop structures and equipment added after 1908 would be removed. With the exception of the seven-story Market Street tower, all construction above the fourth floor level would be demolished or rehabilitated. The south facade of the Market Street frontage (fourth through seventh floors) would be modified to satisfy new uses of the spaces. A new fifth floor, and possibly a sixth, would be added above the existing fourth floor along the east, west, and south sides of the building (see Figures 27 and 28).



SOURCE: Architectural Resources Group

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION / EMPORIUM SITE DEVELOPMENT
FIGURE 27 PRESERVATION ALTERNATIVE 2 - PLAN



SOURCE: Architectural Resources Group

New construction above the existing roof level of the Emporium Building would be designed not to be visible from Market Street. New construction above the fourth-floor level of the Emporium Building, both rooftop additions and new construction at Jessie Street and the Annex site (Lot 38) to the west, would be designed to be compatible with, but differentiated from, the historic building.

The center third of the Emporium Building's interior would be preserved as a retail space with the existing column grid; the open column layout would be preserved in the central third of the building from Market Street through to Jessie Street (see Figure 27, p. 206). The eastern and western floor areas could be altered and subdivided into smaller retail units. The existing floor levels would be retained to insure that floor and ceiling heights match existing window and doors openings. The dome and rotunda would be preserved at their original location. The dome would be restored; infill panels and later glazing at the rotunda would be removed and its original features would be restored to the extent that historic documentation is available and in compliance with applicable codes. The four original skylights north and south of the dome would be restored. The upper floors in this central area could be opened up to create a multi-level gallery-type space lit by the dome and skylights. (Photographs show that multi-level spaces below the skylights were a feature of the original pre-1906 building eliminated when the third floor was added in the 1908 post-Earthquake reconstruction.) Interior changes with this alternative would include the removal of non-historic elements and the rehabilitation of existing or addition of new code-compliant elevators, escalators, and exits. The single remaining 1936 escalator would be preserved, although it could be relocated. Access to the San Francisco Shopping Centre (in place at the time the Emporium closed in 1996) would be developed to complement the Emporium's historic interior. All new interior work would be clearly differentiated from original features and finishes.

The mechanical system would be rehabilitated or replaced to eliminate its impact on historic features, particularly the dome, which has had heating and ventilation ducts passed through several openings. New mechanical systems and support facilities that cannot be incorporated

into the Emporium Building without serious impact on the historic fabric of the building would be located in new construction on the site.

The existing structures on Lots 10, 12, 13, 14, 15, 17, 18, and 33 would be demolished. A new addition would be constructed between the south wall of the Emporium Building and Mission Street, including existing Lots 12, 13, 14, 15, 17, and part of Lot 18. Portions of Lots 10, 18, and 33 would be used in the reconfiguration of Jessie Street. The 1916 Emporium Annex on Lot 38 would be demolished and the site incorporated into the new construction. Jessie Street would be realigned to connect with Mission Street east and west of the site, as with the proposed project. The central portion of Jessie Street would become part of the new addition, as with the project. The existing pedestrian bridges over Jessie Street would be removed. Elements of the Jessie Street facade of the Emporium Building would be retained as a grid of columns, wall segments or other design features to express visually the limit of the original building and to provide a clear transition from areas of old to new construction. Along the present south side of Jessie Street, there would be an open grid or other design device, such as flooring material, to indicate the limit of the original street, and to differentiate new construction south of Jessie Street from the original configuration of Jessie Street. Some or all floors of the new addition would span Jessie Street, taking into consideration potential differences in floor levels between the new addition and the Emporium Building. Bridges could connect some floors where there would be a disparity in levels.

New construction south of the Emporium Building would be designed to be compatible with the general character of the surrounding neighborhood. The size and scale of the new construction would take into consideration its potential impact on the daylighting of the Emporium spaces. The interior organization of the transition spaces above Jessie Street would relate to the design and proportion of the Emporium Building. The base structure would be approximately 140 feet and seven-stories high (the height of the Market Street facade of the Emporium Building). A 12-story hotel tower, with 10 levels of rooms above two floors of lobbies and other facilities would rise along Mission Street; the hotel tower

would be set back from Mission and Jessie Streets. The western portion of the site, including the Emporium Annex, would rise to a height comparable with that of the existing Annex, or about nine stories. (See Figures 27 and 28, pp. 206 and 207, respectively.)

Loading access to the site would be from Jessie Street, as with the proposed project. Pedestrian access to the site would be via the original Market Street entrances and from new Mission Street entrances. There could be a pedestrian bridge to the garage across Mission Street, as proposed with the project. Code-compliant disabled access would be provided to all areas of the existing and new portions of the site, while avoiding undue impact on the historic Market Street facade.

With Preservation Alternative 2, the floor area of the Emporium Building would provide from 475,000 to 480,000 gross square feet of retail space, with 35,000 to 70,000 gross square feet for retail, hotel, or entertainment use on the new fifth and sixth floors; new construction, including the Annex site, Jessie Street, and the site south of Jessie Street, would provide from 550,000 to 600,000 gross square feet of retail, entertainment, or hotel space; the hotel tower, with about 300 rooms, would be about 250,000 to 300,000 gross square feet, for a total area of between 1,310,000 and 1,450,000 gross square feet, compared to about 1,575,000 gross square feet with the proposed project. These figures include a full basement. The total would vary depending on the number of floors added to the Emporium Building and the extent of construction above Jessie Street as well as the amount of multi-level spaces within either the Emporium Building or the new addition. The massing of the hotel tower could also affect these floor area totals. In addition, if floor-to-floor heights in the new construction differ substantially from those of the Emporium Building, the number of stories, and therefore the overall floor area, may vary. For purposes of evaluation of this alternative, floor area is assumed to be 1,450,000 gross square feet.

IMPACTS

Of the alternatives, the Preservation Alternative 2 would be most similar to the proposed project in terms of the land uses proposed. Retail, entertainment, and hotel uses would be included, and would be consistent with the range of uses in the vicinity.

This alternative would preserve some of the important architectural elements of the Emporium Building, including the central third of the interior, the rotunda, and the Market Street facade. The dome would be preserved in place and restored. However, unlike the Preservation Alternative 1, this alternative would result in alteration of the east and west interiors, removal of column structures, opening of the upper floor areas to create a multi-story gallery, and removal of the Jessie Street facade. While this alternative would reduce the impacts associated with demolition and alteration of the Emporium Building associated with the project, it would not meet the all preservation criteria in the *Secretary of Interior's Standards*, as would Preservation Alternative 1. Thus, Preservation Alternative 2 would still cause a significant adverse impact on the Emporium Building as an architectural resource.

This alternative would limit new development on the Emporium Site, compared to the proposed project. The dome would not be relocated. From Market Street, views of this alternative would be similar to existing conditions, including a rehabilitated Market Street facade of the Emporium Building. The relocated dome and upper floors of the hotel tower that would be visible with the proposed project from some locations near Market Street would not be seen with this alternative. From Mission Street, this alternative would replace views of existing buildings and parking uses on the Emporium Site with a new building up to about 300 feet tall. The hotel tower with this alternative would not include the north-south wing near Fifth Street proposed with the project; views east on Mission from west of Fifth Street would include a smaller hotel tower. Views west on Mission Street would be similar to those with the project.

This alternative would generally have the same impacts on shadow and wind as the proposed project. Net new shadow would be extended onto parts of Jessie and Mission. As with the proposed project, this alternative would not add significant shadow to open space in the vicinity. Wind impacts would be expected to be similar to those for the project, and could create one exceedance of hazardous levels at one location on the roof of the Fifth and Mission Garage. With mitigation identified in this EIR, the hazard exceedance could be avoided.

This alternative would have similar effects on transportation as would the project. LOS at two intersections would be reduced to unacceptable levels with existing-plus-project or cumulative conditions. Mitigation identified in this EIR would result in an acceptable LOS D at Fifth/Howard. As with the project, the cumulative LOS F at the Fourth/Howard intersection would not be mitigable. CO levels would not exceed federal or state standards; the alternative would contribute other emissions to cumulative air quality effects that would be significant. Project loading activities would increase noise levels on Jessie Street adjacent to the existing hotels, with effects that would be similar to those described for the project.

NOTES: Alternatives

1. Architectural Resources Group (ARG), memorandum to EIP Associates, July 29, 1998. This document is on file and available for public review at the Planning Department, 1660 Mission Street, Fifth Floor.

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One Maritime Plaza, Suite 900
San Francisco, CA 94111

North of Market Planning Coalition
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San Francisco, CA 94102

Ed Michael
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MEDIA

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1201 Evans Avenue
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San Francisco, CA 94120

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Stephen Weicker
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San Francisco, CA 94146

Jim Haas
Civic Pride
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San Francisco, CA 94104

Albert Beck
3028 Esplanade St., Ste. A
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San Francisco Business Times
275 Battery Street, Suite 940
San Francisco, CA 94111

City Editor
San Francisco Bay Guardian
2700 Nineteenth Street
San Francisco, CA 94110

Rob Waters
Tenderloin Times
146 Leavenworth Street
San Francisco, CA 94102

Bill Shiffman
Associated Press
1390 Market Street, Suite 318
San Francisco, CA 94102

The Sun Reporter
1791 Bancroft Avenue
San Francisco, CA 94124

LIBRARIES

Stanford University Libraries
Jonsson Library of Government Documents
State & Local Documents Division
Stanford, CA 94305

Institute of Government Studies
109 Moses Hall
University of California
Berkeley, CA 94720

Hastings College of the Law - Library
200 McAllister Street
San Francisco, CA 94102-4978

Government Publications Department
San Francisco State University
1630 Holloway Avenue
San Francisco, CA 94132

Government Documents
Main Library - Civic Center
100 Larkin Street
San Francisco, CA 94102

ADJOINING PROPERTY OWNERS

Brugnara Corporation
38 San Jacinto Way
San Francisco, CA 94127

Ann O'Neill
O'Brien Properties
520 Geary St., #109
San Francisco, CA 94102-1619

Mary Stebbins
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San Francisco, CA 94102-2906

Bank of America
P.O. Box 37000
San Francisco, CA 94137-0001

820 Mission Street Inc.
949 S. Hope Street #200
Los Angeles, CA 90015-1455

Pickwick Hotel
85 5th Street
San Francisco, CA 94103

American Patriot
2121 Avenue of the Stars, 10th Floor
Los Angeles, CA 90067

55 Fifth Street Corp.
755 Sansome St., #100
San Francisco, CA 94111-1706

IHOP
832 Mission Street
San Francisco, CA 94103

Gerson Fox
P.O. Box 706
Monrovia, CA 91017-0706

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Powell Hotel
28 Cyril Magnin St.
San Francisco, CA 94102-2838

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San Francisco, CA 94103

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San Francisco, CA 94103-1824

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55 5th Street
San Francisco, CA 94103

San Francisco Unified School District
135 Van Ness Ave.
San Francisco, CA 94102

Building Management Office
865 Market Street
Unit A
San Francisco, CA 94103

Pacific Resources PCX Development Inc.
225 Bush St., Ste. 770
San Francisco, CA 94104-4221

PROJECT AREA TENANTS AND OWNERS

Tenants and other property owners in the project area, approximately 480 parties, were sent notices of availability of the Draft EIR and Draft EIR public hearing. A complete copy of the distribution listing is available in the Planning Department office at 1660 Mission Street, as part of File No. 98.090E.

VIII. REPORT PREPARERS; ORGANIZATIONS AND INDIVIDUALS CONSULTED

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Chief Planner:

Thomas Conrad

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Robert Thompson
Maria Pracher

Appendix A

Initial Study

**NOTICE THAT AN
ENVIRONMENTAL IMPACT REPORT
IS DETERMINED TO BE REQUIRED**

Date of this Notice: July 18, 1998

98.090E

Joint Lead Agencies: Planning Department, City and County of San Francisco
1660 Mission Street - 5th Floor, San Francisco, CA 94103

San Francisco Redevelopment Agency (SFRA)
770 Golden Gate Avenue, San Francisco, CA 94102

Agency Contact Persons: Joan Kugler, Planning
Thomas Conrad, SFRA

Telephone: (415) 558-6396
(415) 749-2492

Project Title: 98.090E, Yerba Buena Redevelopment Project Area Expansion/Emporium Site
Development

Project Sponsors: San Francisco Redevelopment Agency
Forest City Development

Project Contact Person: Natalie Berg, Forest City Development

Telephone (415) 836-5980

Project Address: Market Street, bounded by Fourth, Minna, and Fifth Streets

Assessor's Block(s) and Lot(s): Assessor's Block 3705, Lots 9, 10, 12, 13, 14, 15, 17, 18, 33, 38, and 43 and
Assessor's Block 2724, Lots 1, 2, 4, 47, 63 and 64

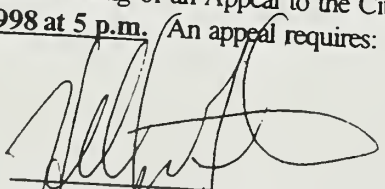
City and County: San Francisco

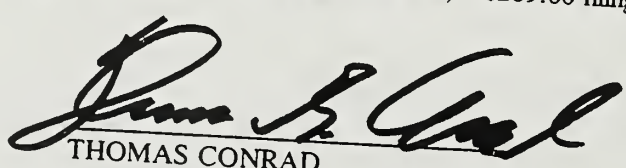
Project Description: The proposed project would expand the existing Yerba Buena Center Redevelopment Project Area. The project would require amendments to the Yerba Buena Center Redevelopment Plan, Design for Development document, and conforming General Plan amendments.

After these and related approvals, Forest City Development proposes to construct a mixed-use project on the block bounded by Market, Fourth, Mission, and Fifth Streets. The project would include new retail, entertainment, restaurant, cinema use, and a 450- to 464-room hotel, totaling about 1.575 million gross square feet. The project would retain the Market Street facade of the former Emporium department store, retain and reuse the Emporium dome and part of the rotunda, demolish and replace other existing buildings on the site between Jessie Street and Mission Street, close Jessie Street as a through connection between Fourth and Fifth Streets, and realign Jessie Street with connections to Mission Street. The project would also include a two-level pedestrian bridge serving the project from the existing Fifth and Mission Garage, and may include other improvements to that garage.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Section 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and the following reasons, as documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

Deadline for Filing of an Appeal to the City Planning Commission of this Determination that an EIR is required: August 7, 1998 at 5 p.m. An appeal requires: 1) a letter specifying the grounds for the appeal, and; 2) a \$209.00 filing fee.


HILLARY E. GITEMAN
Environmental Review Officer
Planning Department


THOMAS CONRAD
Chief Planner
San Francisco Redevelopment Agency

ERS 6/96

**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
INITIAL STUDY
98.090E**

I. PROJECT DESCRIPTION

The proposed project would expand the existing Yerba Buena Center Redevelopment Project Area, requiring amendments to the Yerba Buena Center Redevelopment Plan, the Design for Development document and conforming General Plan Amendments. To begin the project, the Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development must obtain the following legislative changes:

- Amendment of the Downtown Plan Element of the General Plan increasing the Height and Bulk districts to allow for the proposed design.
- Amendment of the Yerba Buena Center Redevelopment Plan to include the project site within the Redevelopment Project Area boundaries to enable the City of San Francisco and the San Francisco Redevelopment Agency (Redevelopment Agency) to use redevelopment powers to facilitate development of the project if the Agency deems such use necessary and desirable, and to establish land use standards to allow and control development of the project;
- Approval of the Redevelopment Plan Amendment by the Board of Supervisors.
- Amendment of the Yerba Buena Center Redevelopment Project Area Design for Development document to establish design objectives, standards, and guidelines to allow and control development of the project.

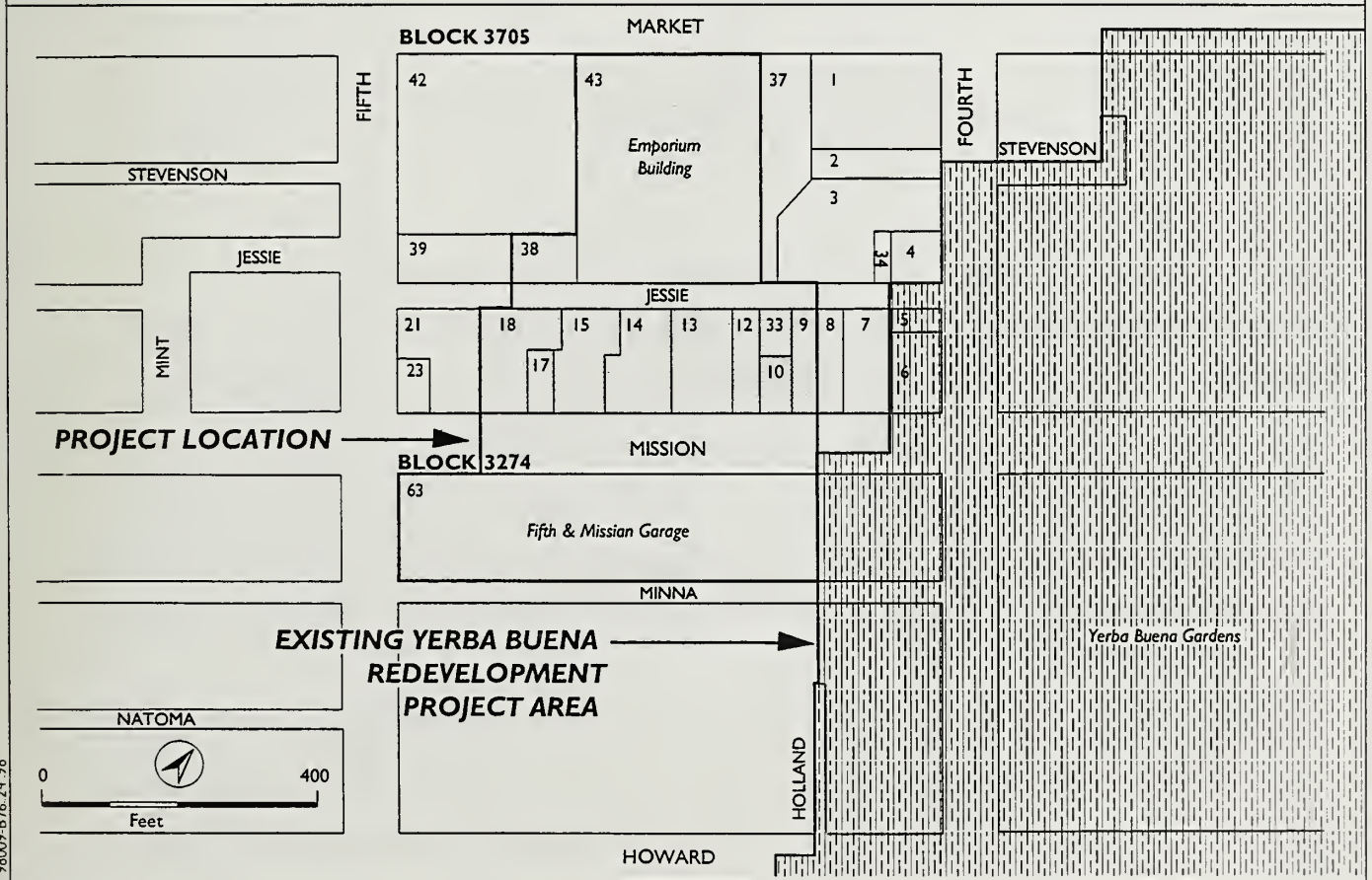
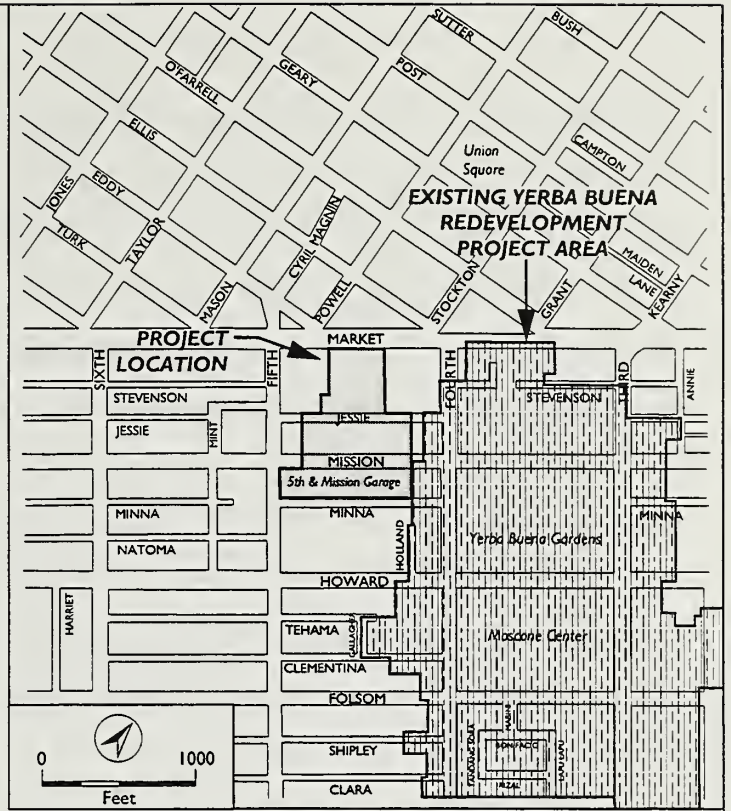
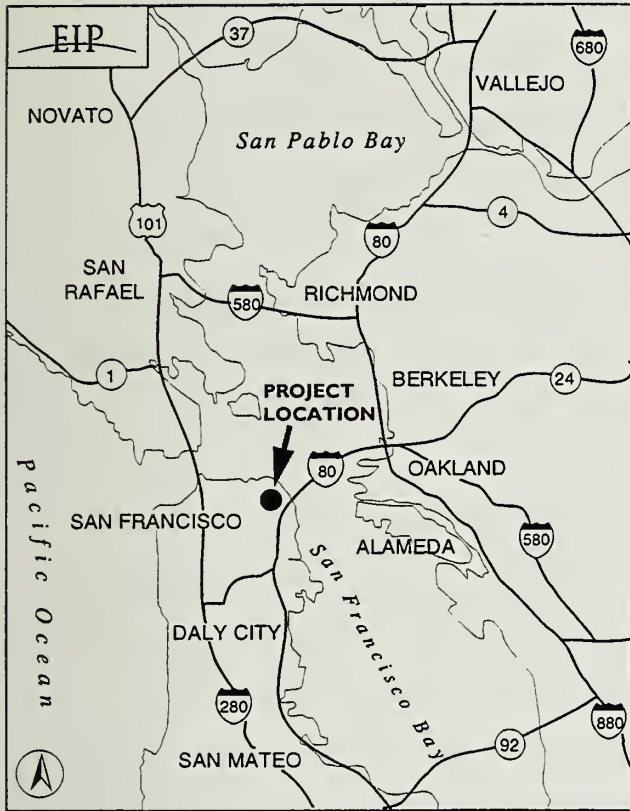
The project would also require a number of other land use and related approvals, and the execution of an owner - participation agreement or a disposition and development agreement or both between the Redevelopment Agency, Forest City Development, and Federated Department Stores, Inc. This agreement would permit and govern the physical development of the project, and establish and govern the relationships among the Redevelopment Agency, Forest City Development and Federated Department Stores, Inc. regarding the acquisition, ownership, consolidation, and potential subdivision of the project site, and the financing, construction, ownership, and operation of the project improvements. Other approvals would include an easement or encroachment permit from the City and the Fifth and Mission Garage Corporation for a pedestrian

bridge over Mission Street to the garage; street vacation or encroachment permits for the realignment of Jessie Street; and building permits.

After these and related approvals, Forest City Development and Federated Department Stores, Inc. propose to construct a mixed-use project on the block bounded by Market, Fourth, Mission, and Fifth Streets. As shown in Figure 1, the project site is generally within the area bounded by Market Street, between Fourth, Minna, and Fifth Streets. The site consists of Assessor's Block 3705, Lots 9, 10, 12, 13, 14, 15, 17, 18, 33, 38, and 43, and Assessor's Block 3724, Lot 63. On Assessor's Block 3705, Lot 43, the Emporium building's ground floor, is currently the Macy's furniture retail store, while Lots 13, 14, and 15 were formerly warehouse and office space for the Emporium. (Federated Department Stores, Inc., is the corporate owner of Macy's and of the former Emporium properties.) Lots 9, 10, 12, 33, and 38 are mixed-use retail and office buildings; and Lots 17 and 18 are currently parking facilities. Block 3724, Lot 63 is the western portion of the Fifth and Mission Garage; the eastern portion of the Fifth and Mission Garage is already within the Yerba Buena Redevelopment Area. The project site, not including the proposed vacated portion of Jessie Street, or the Fifth and Mission Garage, is approximately 185,000 square feet. The vacated portion of Jessie Street would be approximately 15,000 square feet. The Assessor's Block 3724, Lot 63 portion of the Fifth and Mission Garage is about 99,800 square feet (See Figure 1). The Fifth and Mission Garage site totals about 121,000 square feet, and occupies the Mission-Fourth-Minna-Fifth block, with 2,654 parking spaces, and about 3,600-square-feet of retail space fronting Fourth Street.

Most of the Redevelopment Project Area Expansion/Emporium Site Development is within a (C-3-R) Commercial (Downtown Retail) district, and within three Height and Bulk districts, 120-X, 160-S, and 160-F; the Fifth Mission Garage portion of the site is within a (P) Public District and three Height and Bulk Districts, 90-X, 160-F, and 340-I.

The Emporium Site Development would include new retail, entertainment, restaurant, cinema use, and a hotel. The project would retain the Market Street facade of the former Emporium department store (Lot 43); The existing dome would be retained and replaced on top the retail/cinema roof level, about 136 feet above Market Street. Forest City Development is



**YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 1 PROJECT LOCATION**

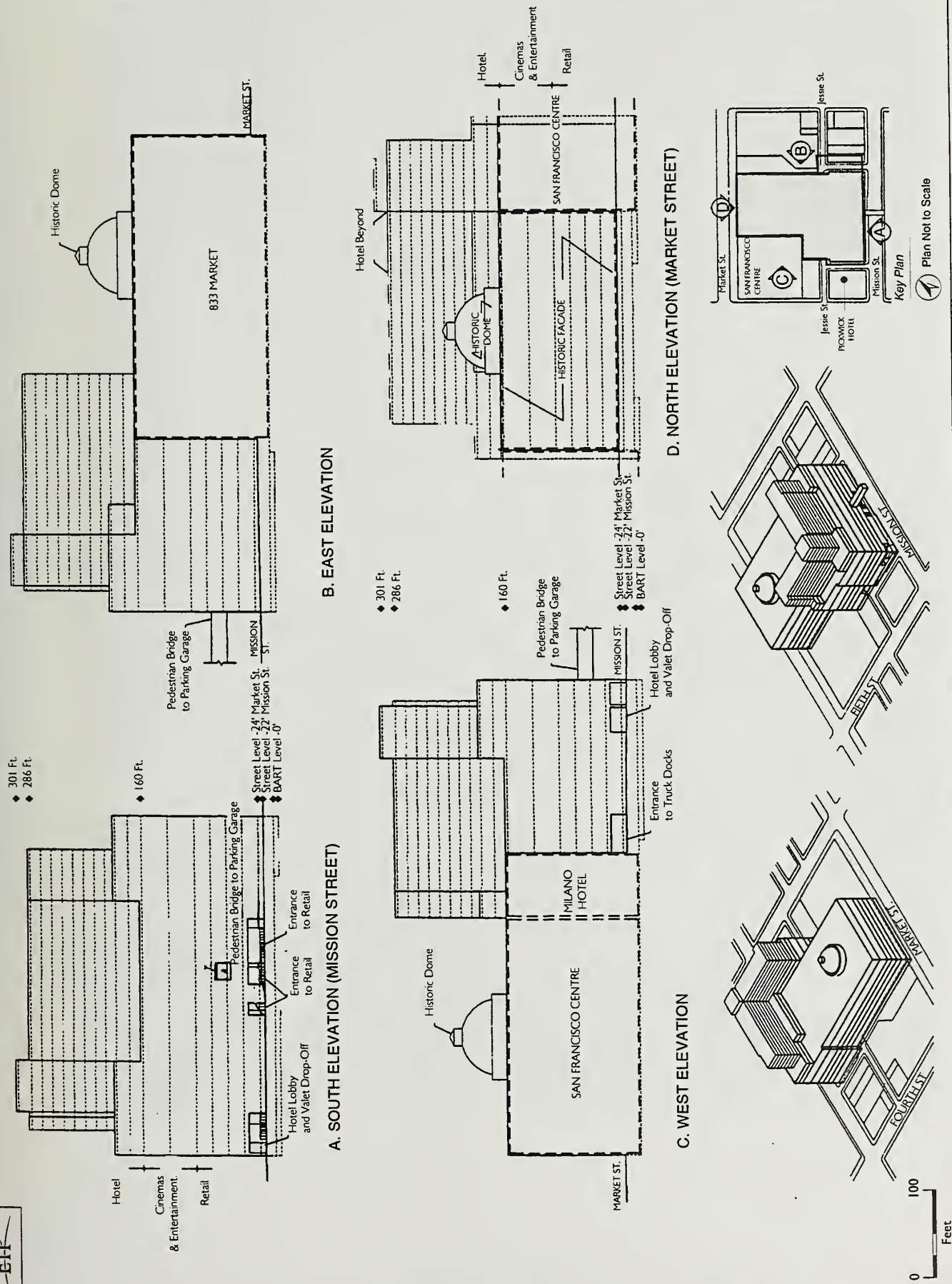
considering two hotel tower alternatives. Hotel Variant 1 would be an eight-floor, 464-room hotel tower rising 280 feet above Mission Street to the top of the mechanical penthouse (See Figure 2). Hotel Variant 2 would be an ten-floor, 465-room hotel tower rising 303 feet above Mission Street to the roof of the mechanical penthouse (See Figure 3). The project would also include a pedestrian bridge serving the project from the existing Fifth and Mission Garage, and may include improvements to that garage such as refinements to the Mission Street facade.

The project would demolish and replace the six other existing buildings on the site between Market Street and Mission Street, vacate a portion of Jessie Street as a through connection between Fourth and Fifth Streets, and realign the remaining segments of Jessie Street as public streets that connect to Mission Street. Portions of Lots 10, 18 and 33 would be used in the realignment of Jessie Street. The remainder of these three lots; Lots 12, 13, 14, 15, 17, and 43; and the vacated portion of Jessie Street would be the site of the new retail center. The building on Lot 9, east of the new alignment of Jessie Street, would be retained, and possibly renovated.

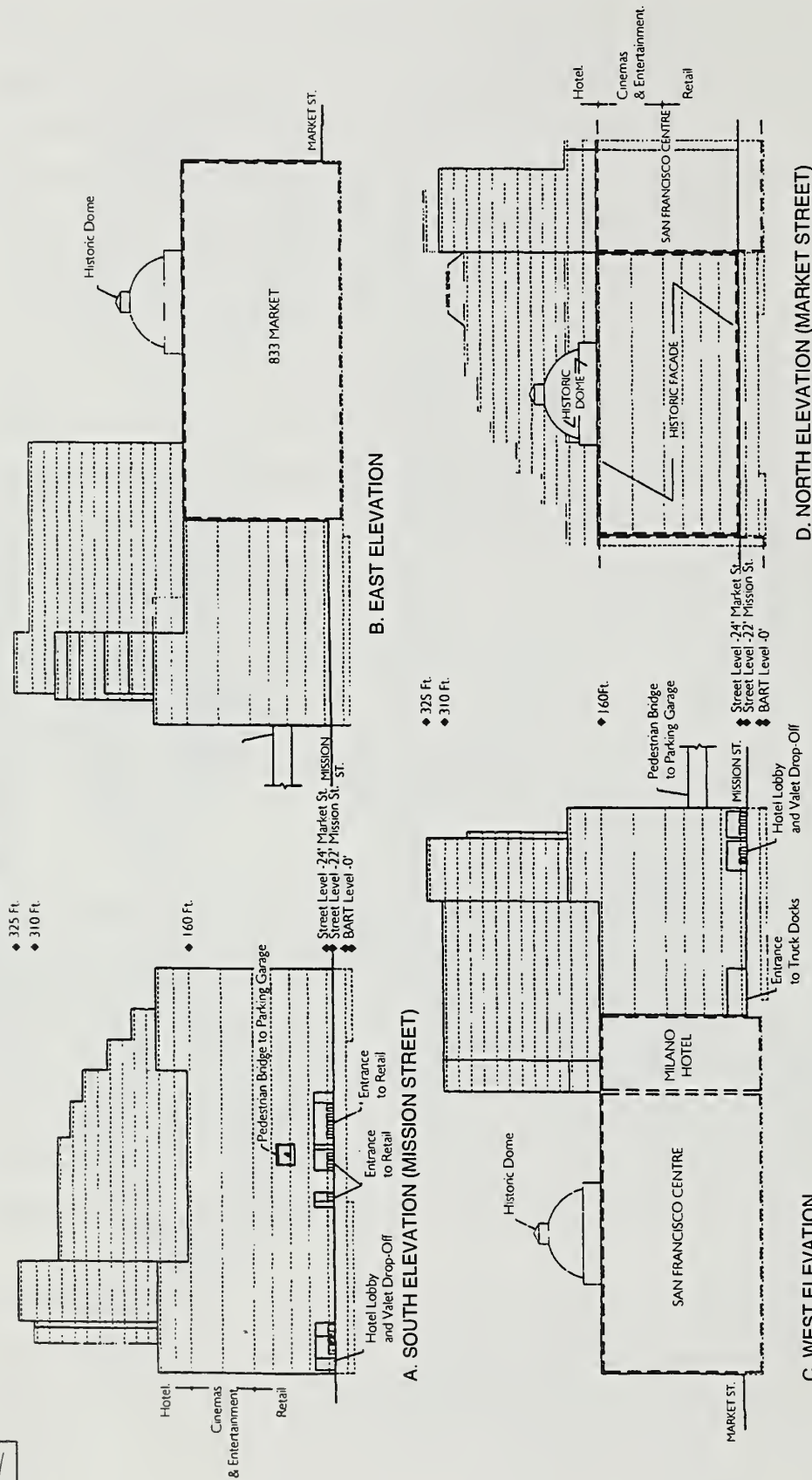
Figures 4 and 5 illustrate axonometric sketches of the two alternatives on an aerial photograph of the site.

The new building would include retail space, totaling about 915,000 square feet, with a Bloomingdale's Department Store from the basement level to the fourth floor. (The total floor area of the Bloomingdales's store versus other retail uses has not been established.) The basement level would reestablish direct connections to the Powell Street BART and Muni Metro station under Market Street, formerly available through the Emporium. The Bloomingdale's frontage on Mission Street would serve as the main street entrance to that store. Levels 5 through 6 would contain about 200,000 square feet of entertainment uses and a 110,000 square foot multiplex cinema with up to 25 screens.

The hotel would be served by a vehicle drop-off area and entrance lobby on Mission Street near Fifth Street and the realigned Jessie Street. Hotel elevators would serve two floors of main lobby, restaurant, meeting, and service space and eight to ten floors of rooms. The



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 2 SCHEMATIC PLANS - HOTEL ALTERNATIVE I



YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 3 SCHEMATIC PLANS - HOTEL ALTERNATIVE 2

EIP

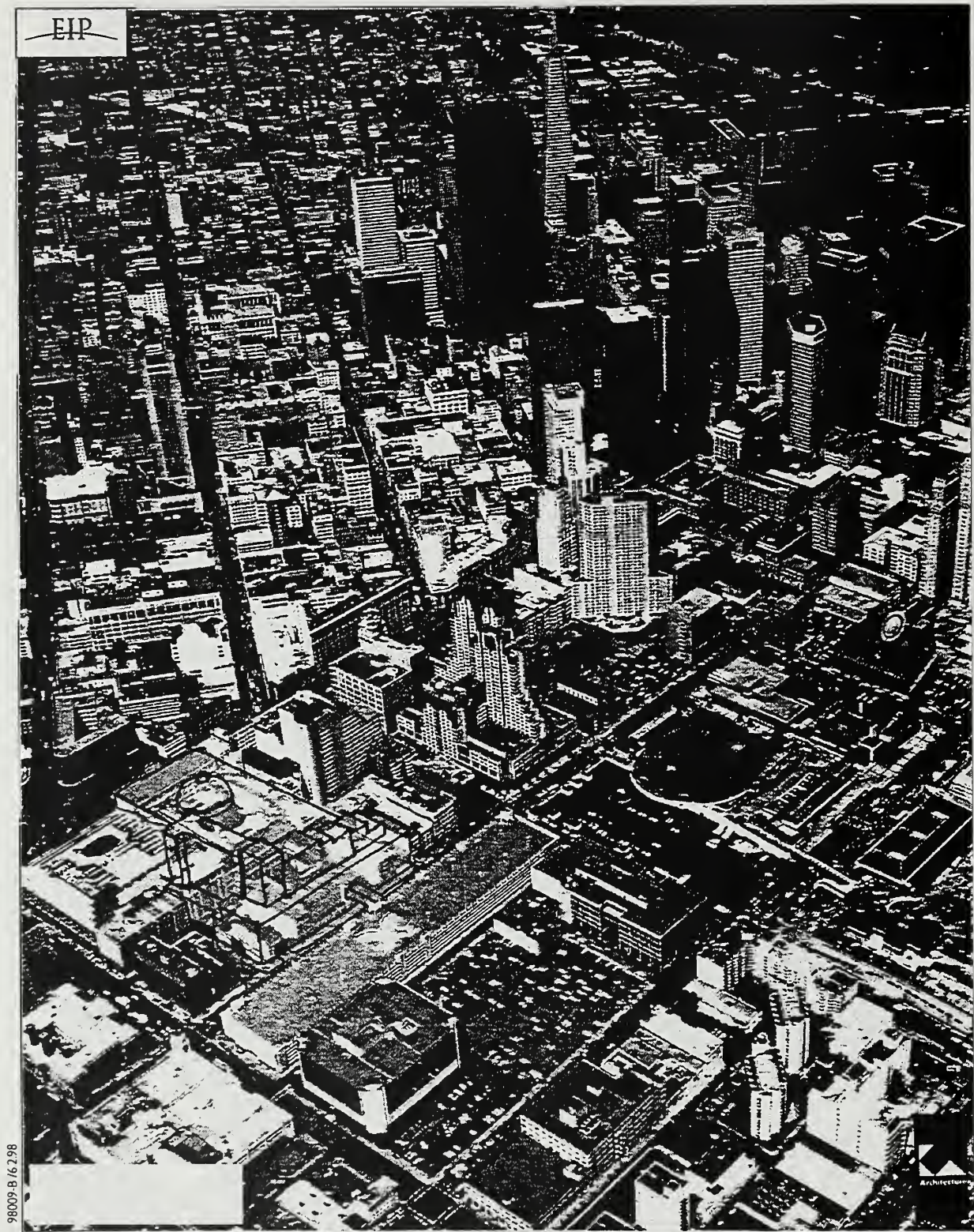
98009-B/6298



SOURCE: KA, Inc. Architecture

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 4 AXONOMETRIC VIEW - HOTEL ALTERNATIVE I

EIP



98009-B / 6.2.98

SOURCE: KA, Inc. Architecture

YERBA BUENA REDEVELOPMENT PROJECT AREA
EXPANSION/EMPORIUM SITE DEVELOPMENT
FIGURE 5 AXONOMETRIC VIEW - HOTEL ALTERNATIVE 2

L-shaped hotel tower would be oriented along the Mission Street frontage and the westerly portion of the project.

The project would include retail corridors that could connect to corresponding levels of the San Francisco Shopping Centre to the west. The project would also include a 14-bay enclosed truck loading and delivery area served from the realigned Jessie Street near Fifth Street.

Construction, including demolition, foundations, structure, facade and interior work would be expected to last about 30 months. Foundation, structural and facade construction would be completed during the first 16-18 months. Excavation would be up to approximately six feet in depth along the Market Street area of the project in order to correct the change in elevation between the retail site and the transit concourse; 46,000 cubic yards of soil would be removed from the site.

II. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

This Initial Study examines the Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development project to identify its potential effects on the environment. On the basis of this study, project-specific effects that have been determined to be potentially significant relate to visual quality, transportation and circulation, air quality and climate (including wind and shadows), noise and architectural resources. These issues will be analyzed in an environmental impact report (EIR). Land use will be discussed in the EIR for informational purposes. Topics noted "TO BE DETERMINED" mean that discussion in the EIR will enable a determination whether or not there would be a significant impact.

B. EFFECTS FOUND NOT TO BE SIGNIFICANT

The following effects of the Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development development have been determined to be either insignificant or to be mitigated through measures included in the project: land-use, population, utilities and public services, biology, geology and topography, water, energy and natural resources, hazards, and archaeological resources. These issues are discussed below and require no further environmental analysis in the EIR.

III. ENVIRONMENTAL EVALUATION CHECKLIST AND DISCUSSION

A.. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<u>Not Applicable</u>	<u>Discussed</u>
1. Discuss any variances, special authorizations, changes proposed to the City Planning Code or Zoning Map, if applicable.	<u> </u>	<u> X </u>
*2. Discuss any conflicts with any other adopted environmental plans and goals of the City or Region, if applicable.	<u> </u>	<u> X </u>

The Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development project would include amendments to the Yerba Buena Center Redevelopment Plan and associated Design for Development document to include the project site within the boundaries of the Yerba Buena Center Redevelopment Project Area and to provide the site with land use controls and design standards. The EIR will discuss these proposed amendments as well as the approvals necessary to enact them. The EIR will also discuss any concomitant amendments to the General Plan and/or amendments to zoning, or Height and Bulk districts. Applicable plans include the Downtown Plan Element, the Urban Design Element, and the Commerce and Industry Element of the General Plan.

B. ENVIRONMENTAL EFFECTS

1. Land Use

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Disrupt or divide the physical arrangement of an established community?	<u> </u>	<u> X </u>	<u> X </u>
b. Have any substantial impact upon the existing character of the vicinity?	<u> </u>	<u> X </u>	<u> X </u>

Most of the project site, including the Emporium building, has been in retail and related uses as part of the Market Street-Union Square retail core of downtown San Francisco. The Emporium site itself has been in department store use since the 1890's. The Market-Fourth-Mission-Fifth Block also includes existing hotel uses on Fourth Street (The Victorian Hotel) and Fifth Street (The Milano Hotel and the Pickwick Hotel), and the San Francisco Community College Downtown Center at Fourth and Mission Streets. Other major retail uses include the San Francisco Shopping Centre, adjacent to the site on the west, street-level retail on Market Street to the east between the Financial District and the Civic Center to the west, and the Union Square hotel and shopping district about two blocks north. To the east, Yerba Buena Center includes hotels, the Moscone Convention Center, the Yerba Buena Center for the Arts, the Yerba Buena Gardens open space, and the under-construction Sony Metreon. The Metreon, on Fourth Street between Mission and Howard Streets, will be a cinema and retail center. The Pacific Center, a retail renovation of the Pacific Building at Fourth and Market Streets on the project block, is also under construction. The Moscone Center Expansion Project has been approved for a three-level, 115-foot-tall, 680,000 gross-square-foot convention facility on the west side of Fourth Street with frontage on Howard and Minna, south of the Fifth and Mission Garage. The Fifth and Mission Garage, comprises the proposed Redevelopment Project Area south of Mission Street, and would be connected to the retail center by a pedestrian bridge.

While the project would intensify activity on the site, the proposed retail, entertainment, cinema, and hotel uses would be consistent with land uses in the vicinity. The project would not have any adverse effects on existing land use, nor would it disrupt or divide the physical arrangement of a community. The project would not have a significant effect on land use; this topic will be discussed in the EIR for informational purposes.

The scale of the project in relation to surrounding development will be discussed in the EIR in the Visual Quality section.

2. Visual Quality

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Have a substantial, demonstrable negative aesthetic effect?	TO BE DETERMINED		
	___	___	___
b. Substantially degrade or obstruct any scenic view or vista now observed from public areas?	TO BE DETERMINED		
	___	___	___
c. Generate obtrusive light or glare substantially impacting other properties?	___	<u>X</u>	<u>X</u>

The project would retain the existing Market Street facade of the Emporium building, with new construction of a seven-level retail / entertainment building north of Mission Street. An eight-to ten-story hotel tower would rise above the retail building. The project would change views of the site from Mission Street and would replace views of older retail and warehouse buildings and surface parking. The proposed hotel tower could be visible from Market Street and Hallidie Plaza. The proposed pedestrian bridge from the retail center across Mission Street to the Fifth and Mission Garage would be visible from locations to the east and west on Mission Street.

The EIR will identify key street level view points, including views of the project from Mission Street and Yerba Buena Gardens.

The project would comply with City Planning Commission Resolution 9212, which prohibits the use of mirrored or reflective glass. Therefore, mirrored glass would not be used, and the building would not result in glare affecting other properties. The EIR will, therefore, not discuss glare. The EIR will discuss the project's design, appearance, possible effects on views and its relation to the scale of surrounding development.

3. Population

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Induce substantial growth or concentration of population?	<u> </u>	<u> X </u>	<u> X </u>
*b. Displace a large number of people (involving either housing or employment)?	<u> </u>	<u> X </u>	<u> X </u>
c. Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	<u> </u>	<u> X </u>	<u> X </u>

Buildings on the Market - Mission block have Macy's employees in the former Emporium ground floor and other former Emporium buildings, and office and retail employees in the buildings on Lots 10 and 12. The Macy's employees ~~would~~ *will* vacate the Emporium buildings in January of 1999 when renovations at Macy's Union Square store are complete. Assuming about 100 employees occupy the other buildings, demolition of the existing structures on the site would directly displace those 100 employees. It is expected that these employees would ~~relocate to find other employment~~ within San Francisco and/or the Bay Area. The proposed Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development project would house about 1,900 employees by the year 2002. San Francisco's employment is projected to grow from 534,980 employees in 1995 to 673,495 employees by 2015, for an increase of 26%. ~~Therefore,~~ Project-related employment growth would constitute about 1.3% of citywide employment growth by the year 2015. This potential increase in employment would be minimal in the context of the total employment in greater San Francisco.

San Francisco consistently ranks as one of the most expensive housing markets in the United States. San Francisco is the central city (and most urban place) in an attractive region known for its agreeable climate, open space and recreational opportunities, cultural amenities, strong and diverse economy, and prominent educational institutions. As a regional employment center, San Francisco attracts people who want to live close to where they work. These factors continue to support strong housing demands in the City. New housing to relieve the market pressure created by strong demand is particularly difficult to provide in San Francisco because of ~~high costs of production~~, the amount of land available is limited, and land and development ~~cost~~ costs are relatively high.

An estimated 311,430 households resided in San Francisco in 1995. By, 2015, San Francisco households are expected to increase by 32,309 households to 343,739 households, a 10% increase. Using (the proposed) update of the Office of Affordable Housing Production Program methodology, the project would create a demand for about 605 new dwellings units, *or less than 2% of the projected growth by 2015*. Demand would be less if a greater than usual percentage of new employees are already employed and living locally.¹

Incorporation of the Project Site into the Yerba Buena Redevelopment Area would increase the tax increment available to meet redevelopment objectives, and would also increase the amount of increment required to be "set aside" and used for the production of affordable housing under State law. The amount and location of additional dwelling units that would result from this increased "set aside" is unknown at this time.

The location and affordability of housing in the Bay region is an important policy issue that warrants continued attention by policy makers in San Francisco and other Bay Area jurisdictions. The potential for increased housing demand in and of itself is considered a potential socioeconomic effect of the project, not a physical environmental effect.² ~~but an~~ Increased housing demand may result in an imbalance between local employment and housing, however, which would indirectly result in ~~can lead to~~ long commutes ~~with and~~ secondary traffic and air quality impacts. Thus, while the issue of housing demand per se

~~those issues~~ will not be discussed further in the EIR, *the EIR's analysis of potential secondary impacts such as transportation and air quality will be based on related projections regarding the location of housing and employment. Specifically the assumptions regarding employee trip generation, trip distribution, and mode share, will be based on data assembled from similar land uses within the Downtown area, and on accepted regional projections of housing production and job creation over the next 15-20 years. Both the existing data and the projections reflect a continued imbalance between housing and jobs in San Francisco, along with long commutes within the City and across regional screen lines. To the extent that the proposed Yerba Buena Redevelopment Project Area Expansion/Emporium Site Development Project would create an unmet demand for housing, it would contribute to the projected jobs/housing imbalance and to the resulting cumulative transportation and air quality effects that will be described in the EIR.*

4. Transportation

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	TO BE DETERMINED		
	—	—	—
b. Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?	TO BE DETERMINED		
	—	—	—
c. Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?	TO BE DETERMINED		
	—	—	—
d. Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	TO BE DETERMINED		
	—	—	—

The project’s retail, entertainment, cinema, and hotel uses would place increased demands on the local transportation system, including increased traffic, transit demand, and parking demand. The EIR will discuss project effects related to transportation and circulation,

including intersection operations, transit demand, and impacts on pedestrian circulation, parking, and freight loading, as well as construction impacts.

5. Noise

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
	TO BE DETERMINED		
*a. Increase substantially the ambient noise levels for adjoining areas?	___	___	___
b. Violate Title 24 Noise Insulation Standards, if applicable?	___	<u>X</u>	<u>X</u>
c. Be substantially impacted by existing noise levels?	___	<u>X</u>	<u>X</u>

Demolition, excavation, and building construction would temporarily increase noise in the project area. For example, the project would require pile driving during construction, which would generate noise and possibly vibrations that could be considered an annoyance by occupants of nearby properties. In general, pile driving noise could be about 90 dBA during impact at about 100 feet from the site. Pile driving would be expected to last about four to six weeks. Noise levels at receptors near the project site would depend on their distance from the source and on the presence or absence of noise barriers. Vibrations from the pile driving could be felt in adjacent buildings, which include retail, entertainment, and hotel uses. To mitigate any impacts associated with noise generated from pile driving, the project would comply with regulations set forth in the San Francisco Noise Ordinance.

To further minimize noise and vibration from pile driving, the project sponsor would require project construction contractors to redrill holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. The project sponsor would also require that contractors limit pile driving activity to result in the least disturbance to adjacent properties. (see Mitigation Measure, p. 32 34)

Construction, including demolition, foundation, structure, facade, and interior work would be expected to last about 30 months. Although construction noise could annoy nearby workers, retail shops, and hotel facilities, particularly those adjacent to the project site, the impacts would generally be limited to the 16-18-month period during which the foundations and exterior structural and facade elements would be built. Interior construction noise would be substantially reduced by the exterior walls. Therefore, construction noise impacts would not be considered significant, and the EIR will not discuss them further.

Ambient noise levels in the vicinity of the project are typical of noise levels in downtown San Francisco, which are dominated by vehicular traffic, including trucks, cars, MUNI buses, and emergency vehicles. Generally, traffic must double in volume to produce a noticeable increase in noise levels on local streets. Traffic volumes would not be expected to double as a result of the project; therefore, substantial increases in traffic noise in the project area would not be anticipated. This effect of increased traffic noise will not be discussed further in the EIR.

The project would create operational noise, from delivery trucks using the realigned Jessie Street near Fifth Street and Mission Street to serve the project loading docks. Delivery traffic could create obtrusive noise for guests of the Milano Hotel and Howard Johnson Pickwick Hotel adjacent to Jessie Street near Fifth Street. These effects of project operational noise will be discussed in the EIR.

The proposed project would include mechanical equipment, such as air conditioning units and chillers, which could produce noise. These operations would be subject to the San Francisco Noise Ordinance, Article 29 of the San Francisco Police Code. Compliance with Article 29, Section 2909, would minimize noise from building operations. Therefore, the EIR will not discuss building equipment noise further.

6. Air Quality / Climate

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?	TO BE DETERMINED — — —		
*b. Expose sensitive receptors to substantial pollutant concentrations?	TO BE DETERMINED — — —		
c. Permeate its vicinity with objectionable odors?	—	<u>X</u>	<u>X</u>
d. Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	TO BE DETERMINED — — —		

During construction, air quality could potentially be affected for a short period. Heavy equipment could create fugitive dust and emit nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), hydrocarbons (HC), and particulate matter with a diameter of less than 10 microns (PM₁₀) as a result of diesel fuel combustion. The primary pollutant of concern in fugitive dust would be PM₁₀.

Construction emissions would be short term and temporary, but could still cause adverse effects on local air quality. Bay Area Air Quality Management District (BAAQMD), in its CEQA Guidelines, has developed an analytical approach that obviates the need to quantitatively estimate these emissions. Instead, BAAQMD has identified a set of feasible PM₁₀ control measures for construction activities. The project includes these measures (see p. 32 35) to reduce the effects of construction activities to an insignificant level. Because the project would include these mitigation measures, it would not cause significant construction-related air quality effects. Therefore, the EIR will not address these effects further.

The extent of foreseeable traffic increases has not been determined. The project could potentially result in air quality impacts if traffic volumes increase substantially. The EIR

will calculate emissions and compare them to applicable significance thresholds published by the Bay Area Air Quality Management District. Carbon monoxide emissions and the possibility of exceeding carbon monoxide standards at congested intersections and nearby sensitive receptors could be of particular concern.

City Planning Code Section 295 restricts new shadow upon public spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet unless the City Planning Commission, in consultation with the Recreation and Park Commission, finds the impact to be insignificant. In the project vicinity, Union Square, three blocks north, would be subject to Section 295. Hallidie Plaza at Market and Powell Streets north of the site, and Yerba Buena Gardens, about one block east of the site, is under San Francisco Redevelopment Authority jurisdiction, are not subject to Section 295. The proposed project could increase shadows on open space and sidewalks in the vicinity; therefore, a shadow study will be completed and the EIR will discuss its results.

High-rise buildings have the potential to channel wind, creating discomfort for pedestrians and people in seating areas. For sites in C-3 Districts, Section 148 of the City Planning Code establishes comfort criteria of 11 miles per hour (mph) equivalent wind speed for pedestrians and 7 mph for seating areas, not to be exceeded more than 10% of the time, year-round, between 7:00 a.m. and 6:00 p.m. Winds of 26 mph or greater are considered hazardous. Buildings which would cause an increase that exceeds the hazardous wind criterion for more than a single hour per year are not permitted under Section 148. The EIR will analyze the project's effects in regard to existing wind conditions. A wind tunnel analysis will review effects of the proposed project and will be compared to Section 148 criteria.

7. Utilities / Public Services

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Breach published national, state or local standards relating to solid waste or litter control?	<u> </u>	<u> X </u>	<u> X </u>

- | | | | | |
|----|---|-----|----------|----------|
| b. | Extend a sewer trunk line with capacity to serve new development? | ___ | <u>X</u> | <u>X</u> |
| c. | Substantially increase demand for schools, recreation or other public facilities? | ___ | <u>X</u> | <u>X</u> |
| d. | Require major expansion of power, water, or communications facilities? | ___ | <u>X</u> | <u>X</u> |

The project would realign Jessie Street, now a through street from Fourth to Fifth Street, to new connections to Mission Street. This realignment would require relocation of any water, sewer, electrical, natural gas and telecommunication lines serving adjoining property. Any relocation would be completed without interruption of service to adjacent properties.

The Downtown Area Plan of the San Francisco Master Plan includes the project site. The Downtown Plan EIR evaluated the demand for public services and utilities serving Downtown.³ This analysis remains the best available source of information regarding the general nature of the growth anticipated for the area in the future, and the project would fall within the development forecast for Downtown. The Downtown Plan EIR concluded that the demand for utilities and public services resulting from the C-3 districts would not be significant. The project, in particular, would increase demands relatively little when considered within the context of the greater Downtown area, which is already densely developed.

San Francisco's solid waste is disposed of at the Altamont Landfill. A substantial expansion of the landfill has recently been approved; therefore, the landfill will be able to accommodate San Francisco's solid waste stream well into the future. The solid waste associated with project construction and operation would not substantially affect the foreseeable life of the Altamont Landfill; therefore, the EIR will not further discuss the issue of solid waste generation.

The project would incrementally increase the demand for water in San Francisco. However, the new construction would be designed to incorporate water-conserving measures, such as

installing low-flush toilets and urinals, as required by California State Building Code section 402.0(c). The San Francisco Water Department would provide sufficient water to meet the needs of the project. Because the project would not result in a substantial increase in water use, it would not result in a significant impact, and therefore, the EIR will not discuss the issue further.

The site is served by San Francisco's combined sewer system, which handles both sewage and storm water runoff. Water treatment is provided primarily by the Southeast Pollution Control Plant. The project would meet any wastewater pretreatment requirements of the San Francisco Public Utilities Commission, as required by the San Francisco Industrial Waste Ordinance. No new sewer construction would be needed because the project site is already served by sewer infrastructure. Furthermore, the project would have little effect on the total wastewater volume discharged through the combined sewer system, particularly since storm water runoff contributes greatly to the total flow and the site is already paved (resulting in maximum storm water flows). For these reasons, the EIR will not evaluate demands on wastewater treatment facilities further.

The project site presently receives police and fire protection services, and the project would create little additional demand for fire and police services in the area. Although the project could increase the number of calls received from the area or the level of regulatory oversight that must be provided as a result of the increased concentration of activity on-site, the increase in responsibilities would not likely be substantial in light of the existing demand for police and fire protection services in Downtown. Furthermore, the increase in demand would not require the construction of any new police or fire prevention facilities. For these reasons, the EIR will not discuss further police or fire protection services.

The project site is already served by power utilities and communication facilities. The new building would tap into the existing power and communications grids. Therefore, no new power or communications facilities would be necessary as a result of project implementation, and the EIR will not discuss this issue further.

8. Biology

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Substantially affect a rare or endangered species of animal or plant, or the habitat of the species?	<u>—</u>	<u>X</u>	<u>X</u>
*b. Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	<u>—</u>	<u>X</u>	<u>X</u>
c. Require removal of substantial numbers of mature, scenic trees?	<u>—</u>	<u>X</u>	<u>X</u>

Because the proposed project site is in a developed urban area and is completely covered by structures and impervious surfaces, development of the site would not effect plant or animal habitats. No known rare, threatened or endangered species are known to exists in the vicinity. The project would not interfere with any resident or migratory species. Therefore, this topic will not be discussed in the EIR.

9. Geology / Topology

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	<u>—</u>	<u>X</u>	<u>X</u>
b. Change substantially the topography or any unique geologic or physical features of the site?	<u>—</u>	<u>X</u>	<u>X</u>

The Community Safety Element of the *San Francisco General Plan* contains maps that show areas subject to geologic hazards. The project site is located in an area subject to ground shaking from earthquakes along the San Andreas and Northern Hayward Faults and other faults in the San Francisco Bay Area (Maps 2 and 3 in the Community Safety Element). The project site is also in an area of liquefaction potential (Map 4 in the Community Safety

Element), a Seismic Hazards Study Zone designated by the California Division of Mines and Geology⁴.

For any development proposal in an area of liquefaction potential, the Department of Building Inspection, in its review of the building permit application, requires the project sponsor to prepare a geotechnical report that assesses the nature and severity of the hazards at the site and recommends project design and construction features to reduce the hazards. To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when the Department of Building Inspection reviews the geotechnical report and building plans for a proposed project, it determines necessary engineering and design features for the project to reduce potential damage to structures from ground shaking and liquefaction. The project includes a mitigation measure (see p. 33 35) to facilitate Building Code compliance and reduce potential geological hazards. In this way, potential damage to structures from geologic hazards at a project site would be ameliorated through the Department of Building Inspection requirement for a geotechnical report and review of the building permit application.

The project would not alter the topography of the site, or otherwise affect any unique geologic or physical features of the site.

No further analysis of geology and seismicity is required in the EIR.

10. Water

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Substantially degrade water quality, or contaminate a public water supply?	<u> </u>	<u> X </u>	<u> X </u>
*b. Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?	<u> </u>	<u> X </u>	<u> X </u>
*c. Cause substantial flooding, erosion or siltation?	<u> </u>	<u> X </u>	<u> X </u>

The project would include excavation to about six feet in depth along the Market Street area of the project site in order to correct the change in floor elevation between the retail site and the transit concourse. Dewatering could be required. Any groundwater encountered during construction would be subject to the requirements of the San Francisco Industrial Waste Ordinance (Ordinance No. 199-77), requiring that groundwater meet specified standards before being discharged into the sewer system. The Bureau of Environmental Regulation and Management of the Department of Public Works would be notified if the project were to require dewatering.

Should dewatering be necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based upon this discussion, the soils report would contain a determination as to whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Groundwater monitoring wells and/or instruments would be used to monitor potential settlement and subsidence. If, in the judgement of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor. The project would include mitigation measures to reduce the potential water quality effects of dewatering (see p. 33 36).

The project site is within the Eastside Reclaimed Water Use Area designated by Section 1029 of the Reclaimed Water Use Ordinance (approved November 7, 1991), which added Article 22 to Part II, Chapter X of the *San Francisco Municipal Code (Public Works Code)*. Effective 180 days from the date of this ordinance, non-residential projects over 40,000 sq. ft. that require a site permit, building permit, or other authorization, and are located within this area, shall provide for the construction and operation of a reclaimed water system for the

transmission of the reclaimed water within buildings and structures. That is, the building would need to be designed with separate plumbing to service uses that could employ reclaimed water (*e.g.*, toilets). The ordinance also requires that owners, operators, or managers of all development projects register their project with the Water Department. The Water Department will then issue a certificate of intention to use reclaimed water, and reclaimed water shall be used unless the Water Department issues a certificate exempting compliance because reclaimed water is not available, an alternative water supply is to be used, or the sponsor has shown that the use of reclaimed water is not appropriate. No further analysis of water resources is required in the EIR.

The project site is almost entirely paved or covered by structures; therefore, the project would not substantially affect the area of impervious surface at the site or alter site drainage. Project-related wastewater and storm water would continue to flow to the combined sewer system. During construction, requirements to reduce erosion would be implemented pursuant to California Building Code Chapter 33, Excavation and Grading. During operations, the project would comply with all local wastewater discharge requirements.

11. Energy / Natural Resources

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	___	<u>X</u>	___
b. Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	___	<u>X</u>	___

The project would meet current state and local codes concerning energy consumption, including Title 24 of the California Code of Regulations enforced by the Department of Building Inspection. For this reason, it would not cause a wasteful use of energy. Therefore, energy consumption requires no further analysis and will not be discussed in the EIR.

12. Hazards

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	<u>—</u>	<u>X</u>	<u>X</u>
*b. Interfere with emergency response plans or emergency evacuation plans?	<u>—</u>	<u>X</u>	<u>X</u>
c. Create a potentially substantial fire hazard?	<u>—</u>	<u>X</u>	<u>X</u>

Article 20 of the San Francisco Public Works Code (the “Maher Ordinance”) requires that applicants for building permits within a certain area (largely the part of San Francisco created by landfill) prepare a site history and analyze the site’s soil for hazardous wastes. The analysis is also required if more than 50 cubic yards of soil are to be disturbed and the project is either on fill or at a location designated for investigation by the Department of Public Works. Where the analysis reveals the presence of hazardous wastes, the ordinance requires site mitigation pursuant to the standards, regulations, and determinations of local, state, and federal regulatory agencies. Site mitigation would consist of the removal of hazardous substances and their disposal at an approved disposal site, or other appropriate actions.

The proposed project could disturb about 46,000 cubic yards of soil, and in compliance with the Maher Ordinance, a site history report, site investigation report, and preliminary site remediation plans are being prepared for the project. Where hazardous wastes exceed local, state, or federal standards, the sponsor would be required to submit a Site Mitigation Plan to appropriate agencies, including the San Francisco Department of Public Health, and to implement a Site Mitigation Plan prior to obtaining a building permit. Where toxic materials are found for which no standards have been established, the sponsor would request a determination from appropriate agencies as to whether a Site Mitigation Plan would be needed. In accordance with Article 20, the construction contractor would handle and dispose

of excavated soils properly, employ worker health and safety and dust control procedures, and have a State Registered Professional Geologist or Engineer certify, at the completion of foundation activities, that all elements of the Site Mitigation Plan have been performed in compliance with Article 20 requirements.

Information is unavailable regarding the potential for the existing buildings at the project site to contain asbestos, Polychlorinated Biphenyls (PCBs), lead, mercury, or other hazardous materials. Asbestos, PCBs, and lead were commonly installed through the 1970's in insulation, floor tiles, roofing tar, electrical transformers, fluorescent light ballasts, and paint. Mercury is common in electrical switches and fluorescent light bulbs. If such hazardous materials exist in buildings to be demolished, they can pose hazards to workers, neighbors, and the environment. However, the project includes a mitigation measure (see p. 34 36) that is intended to reduce the potential health risks associated with building materials containing asbestos, PCBs, lead, mercury, or other hazardous materials by securing the investigation, removal, and disposal of these materials prior to demolition of the buildings. The asbestos and lead-based paint materials would be abated by licensed abatement contractors who would follow the city and County of San Francisco Asbestos and Lead-Based Paint Master Abatement Specification prior to demolition of the building. All PCB containing equipment and/or fixtures would be removed and incinerated at a licensed disposal facility.

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable Federal regulation regarding hazardous air pollutants, including asbestos. The Bay Area Air Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work.

Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished/altered including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The District randomly inspects asbestos removal operations. In addition, the District will inspect any removal operation which complaint has been received.

The local office of the California State Occupational Safety and Health Administration (OSHA) must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in 8CCR1529 and 8CCR341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material is required to file a hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Pursuant to California law, the Department of Building Inspection (DBI) would not issue the required permit until the applicant has complied with the notice requirements described above. PCBs are regulated under the federal Toxic Substances Control Act of 1976, and mercury is regulated as a hazardous waste.⁵

Future conditions with the project would involve relatively small quantities of hazardous materials handled and stored for routine business purposes. Office functions would require many of the same types of hazardous materials typical of residential uses (e.g., paints, solvents, and cleaners). Commercial products would be labeled to inform users of potential risks and to instruct users in appropriate handling procedures, and most of these materials would be consumed as used, resulting in relatively little waste. In accordance with state and

federal laws and regulations, businesses would be required to ensure employee safety by identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately training workers.

The greatest volume of hazardous material that would be expected at the project site would be fuel stored to power emergency generators, if necessary. The San Francisco Department of Public Health would oversee the design, installation, and operation of any fuel storage tanks in accordance with regulations within its jurisdiction, including underground storage tank programs and aboveground petroleum storage programs, depending on the types of tanks installed. Applicable regulations require various provisions to contain possible spills. The Bay Area Air Quality Management District would oversee potential air emissions from testing the emergency generators.

An evacuation and emergency response plan would be developed by the project sponsor in consultation with the Mayor's Office of Emergency Services to ensure coordination between San Francisco's emergency planning activities and the project sponsor's plan to provide for building occupants in the event of an emergency. The project sponsor's plan would be reviewed by the Office of Emergency Services and implemented by the project sponsor before the Department of Public Works issues final building permits.

As a result of implementing the regulations summarized above, potential health and safety issues related to potentially contaminated building components, contaminated soil and groundwater, and future use of hazardous materials at the site would be reduced to less-than-significant levels, provided that the mitigation measures included in the project would be implemented. Therefore, these issues do not require further analysis and will not be discussed in the EIR.

13. Cultural Resources

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*a. Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study?	<u>X</u>	<u> </u>	<u>X</u>
b. Conflict with established recreational, educational, religious or scientific uses of the area?	<u> </u>	<u>X</u>	<u>X</u>
c. Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City Planning Code?	<u>X</u>	<u> </u>	<u>X</u>

Archeo-Tec Consulting Archaeologists completed an archival cultural resources evaluation consisting of a systematic review of available maps, photographs, drawings, oral accounts, and other documents.⁶ According to that study, in its natural state, the project vicinity consisted of a series of undulating, grass-covered, sandy hills and adjacent hollows. The marshes of Mission Bay, and the shoreline of Yerba Buena Cove, were located approximately one-half of a mile to the south and east, respectively.

The first documented development within the borders of the project site occurred during the California Gold Rush era of the 1850's. By the time of the 1857 U.S. Coast Survey map, a total of ten structures of varying dimensions were scattered here and there amidst the sand hills that still existed within the block bounded by Market, Mission, Fourth and Fifth Streets.

Systematic grading of the block bounded by Market, Mission, Fourth and Fifth Streets took place between the close of the 1850's and about 1865. During the early-to-mid 1860's, Market Street was extended west of Fourth Street. Fourth and Fifth Streets, between Market and Mission Streets, were completed and opened to traffic, and Jessie Street was delineated and constructed. Between the 1860's and the turn of the century, the site became part of San

San Francisco's downtown commercial district; the area south of Jessie Street was composed of smaller, wood-frame working-class dwellings and commercial buildings. By the 1890's, the many small businesses that had existed a decade earlier within the central portion of the block's Market Street frontage had been replaced by the original Emporium structure. The block was totally devastated by the fires that followed the Great Earthquake and Fire of April, 1906. All of the structures were destroyed. (Most of the Market Street facade of the Emporium building survived the fire.) Following this disaster, the project area and vicinity were quickly rebuilt and within a few years, a new, domed Emporium Building stood incorporating the 1896 facade. The portion of the block south of Jessie Street was much slower to be rebuilt following the earthquake and fire of 1906. However, by the end of the 1930's, the project area and vicinity had assumed the essential characteristics by which they have been known up to the present time.

Archival research suggests that deeply buried prehistoric/protohistoric cultural resources may exist or may once have existed at one or more locations within the project site. A 1986 discovery and investigation of an extensive prehistoric site near the southeastern corner of Market and Fifth Streets, directly adjacent to the proposed project site. This site, now formally designated as CA-SFR-113, was occupied by Native American inhabitants of the San Francisco Bay region approximately 2,000 years ago. An assessment of available historical and archaeological information suggests that portions of this prehistoric deposit may extend into project site. The project would involve excavation that could adversely affect cultural resources of significance. However, the project includes a mitigation measure for pre-construction testing (see p. 35 38) that would to reduce the potential impact to cultural resources to a less-than-significant level.

The existing Emporium building at 825 Market Street is rated Category I - Significant Building in Article 11 of the City Planning Code (Preservation of Buildings and Districts of Architectural, Historic, and Aesthetic Importance in the C-3 Districts), and is in the Kearny-Market-Mason-Sutter Conservation District designated in Article 11. The project site south of Jessie Street is outside that district. No other buildings on the project site are rated in

Article 11, or are designated city landmarks. The EIR will describe the history, architects, architectural character, and significance of the Emporium building and other buildings on the project site.

The project would demolish most of the Emporium building, retain its Market Street facade, and reuse and relocate the dome and a part of the rotunda. The EIR will describe the relationship of the proposed project to standards for alteration or demolition of Category I buildings, and buildings in conservation districts, including standards for retention of architectural character and appropriateness of new design.

C. OTHER

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
Require approval of permits from City Departments other than the Department of City Planning or Bureau of Building Inspection or from Regional, State or Federal Agencies?	<u>X</u>	<u> </u>	<u> </u>

D. MITIGATION MEASURES

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Discussed</u>
1. Could the project have significant effects if mitigation measures are not included in the project?	<u>X</u>	<u> </u>	<u> </u>	<u>X</u>
2. Are all mitigation measures necessary to eliminate significant effects included in the project?	<u> </u>	<u>X</u>	<u> </u>	<u> </u>

The following are mitigation measures related to topics determined to require no further analysis in the EIR. The EIR will contain a chapter describing mitigation measures proposed as part of the project and measures that would be, or could be, adopted to reduce potential adverse project effects identified in the EIR.

Construction Noise

1. The project sponsor would require project construction contractor(s) to predrill holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. The project sponsor would also require that contractors limit pile driving activity to result in the least disturbance to neighbors.

Air Quality / Climate

2. The project sponsor would require the contractor(s) to spray the site with water during excavation and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soil, sand or other such material; and sweep surrounding streets during excavation and construction at least once per day to reduce particulate emissions.
3. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, The project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsors would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions from equipment that would be in frequent use for much of the construction period.

Geology / Topography

4. One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The project sponsor and its contractors would follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponsor would ensure that the construction contractor conducts a pre-construction survey of existing conditions and monitors the adjacent building for damage during construction, if recommended by the geotechnical engineer.
5. If dewatering were necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based on this discussion, the soils report would determine whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, the Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments would be used to monitor potential settlement and subsidence. If, in the

judgement of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be born by The project sponsor.

If dewatering were necessary, the project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

6. The project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems would be modified as necessary in the event that substantial movements are detected.

Water Quality

7. If dewatering were necessary, the project sponsor would follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.

If dewatering were necessary, groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.

8. The project sponsor would require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

Hazards

9. A hazardous materials and wastes survey would be conducted in the existing buildings prior to demolition. Any asbestos and lead-based paint identified in the buildings would be abated by a licensed abatement contractor prior to demolition of the buildings. The contractor would follow the City and County of San Francisco Asbestos and Lead-Based Paint Master Abatement Specification.

The project sponsor would follow all required federal, state and local asbestos removal regulations and notification processes required under the permit review process.

All potential PCB-containing equipment and/or fixtures in the existing buildings would be removed prior to demolition and incinerated at a licensed disposal facility. Any mercury vapor lighting would be removed and recycled prior to building demolition.

Prior to site excavation, the project sponsor would submit a site mitigation plan which would discuss the proposed movement and excavation of site soils, dust control measures and site soils disposal measures. The dust control plan would be implemented on the site and would include measures to keep site soils moist in order to prevent particulates from site soils in the air.

Prior to project site excavation, the project sponsor would conduct site investigation on the parcels containing the existing buildings and would submit site investigation reports to the Department of Public Health, Environmental Health Management Section (DPH, EHMS) for review. Should hazardous materials and/or wastes be found, the project sponsor would submit a site mitigation plan that would include management of contaminated soils.

The site investigation reports would contain the following:

- a. A detailed project description, including discussion on construction activities, number of stories of the project building, depth of basement level, amount of the soil to be disturbed and Environmental Health Management Section (DPH, EHMS)
- b. Depths and locations of trenching for utilities, building foundation, elevator pits, and other project facilities and equipment below ground surface.

All workers involved in removal of hazardous waste soils would follow proper decontamination procedures as defined in a site-specific/project-specific health and safety plan which would be required to be submitted for review and approval by the City and County of San Francisco Department of Public Health, Environmental Health Management Section (DPH, EHMS) at least two weeks before any soil on the site is moved. The Health and Safety Plan would be prepared by a safety officer professional with appropriate certification and training. The certified site safety officer would train the project workers on the handling of any hazardous materials and wastes that may be encountered. In addition, the credentials of the certified site safety officer would be submitted to the DPH, EHMS for verification.

Construction monitoring by a trained hazardous waste specialist would be conducted throughout excavation activities to assist in identification of previously undiscovered

hazardous materials and waste issues. Remediation of these previously undiscovered materials and waste would be addressed as they are discovered and identified.

The project sponsor and project contractor would comply with all provisions of the site mitigation plan as approved by the Department of Public Health, Environmental Health Management Section (DPH, EHMS).

Cultural Resources

10. Given the location and depth of excavation proposed, and the likelihood that archaeological resources would be encountered on the project site, the project sponsor has agreed to retain the services of an archaeologist. The archaeologist would conduct a pre-excavation testing program to better determine the probability of finding cultural and historical remains. The testing program would use a series of mechanical, exploratory borings or trenches or other testing methods determined by the archaeologist to be appropriate.

If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the Environmental Review Officer, with a copy to the project sponsor and the San Francisco Redevelopment Agency. If the archaeologist determines that further investigations or precautions are necessary, he or she would consult with the Environmental Review Officer, and they would jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

These additional measures would be implemented by the project sponsor and could include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are findings of significance, would result in a written report to be submitted first and directly to the Environmental Review Officer, with a copy to the project sponsor and the San Francisco Redevelopment Agency. During the monitoring program, the project sponsor would designate one individual on site as its representative. This representative would have the authority to suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources if they are encountered.

If evidence of cultural resources of potential significance were found during the monitoring program, the archaeologist would immediately notify the Environmental Review Officer, and the project sponsor would halt any activities that the archaeologist and the Environmental Review Officer jointly determine could damage such cultural resources. Ground disturbing activities that could damage cultural resources would be suspended for a total maximum of four weeks over the course of construction.

After notifying the Environmental Review Officer, the archaeologist would prepare a written report to be submitted first and directly to the Environmental Review Officer, with a copy to the project sponsor and the Redevelopment Agency, which would contain an assessment of the potential significance of the find and recommendations for what measure should be implemented to minimize potential effects on archaeological resources. Based on this report, the Environmental Review Officer would recommend specific additional measures to be implemented by The project sponsor. These additional measures could include a site security program, additional on-site investigations by the archaeologist, or documentation, preservation, and recovery of cultural material.

Finally, the archaeologist would prepare a report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration or recovery program is to be conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the Environmental Review Officer for review. Following approval by the Environmental Review Officer, copies of the final reports would be sent by the archaeologist directly to the project sponsor, and the San Francisco Redevelopment Agency, the President of the Landmarks Preservation Advisory Board, and the California Archaeological Site Survey Northwest Information Center. Three copies of the final archaeology reports would be submitted to the Planning Department accompanied by copies of the transmittals documenting its distribution.

E. ALTERNATIVES

The EIR will discuss a variety of alternatives to the project that would reduce or eliminate any significant environmental effects. At the least, the EIR will including the following:

- 1 No-Project Alternative
- 2 Retail and Entertainment Uses Only (No Hotel Tower)
- 3 Preservation Alternative - Retention of the Emporium Building, consistent with the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings.
- 4 Design Alternatives Considered and Rejected

F. MANDATORY FINDINGS OF SIGNIFICANCE

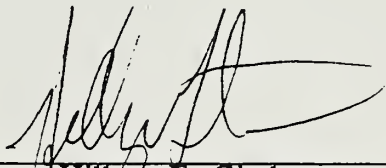
	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history?	TO BE DETERMINED ____ _		
*2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	____	<u>X</u>	____
*3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)	TO BE DETERMINED ____ _		
*4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?	TO BE DETERMINED ____ _		

G. ON THE BASIS OF THIS INITIAL STUDY


____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

- _____ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers ___, in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.
- X I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

7/18/98
Date


Hillary E. Gitelman
Environmental Review Officer
for
Gerald G. Green
Director of Planning

7/18/98
Date


Thomas G. Conrad
Chief Planner
San Francisco Redevelopment Agency

Notes:

1. Total San Francisco population and housing estimates derived from Keyser Martson Associates, Inc., *San Francisco Cumulative Growth Scenario, Final Technical Memorandum*, prepared for the San Francisco Redevelopment Agency, March 30, 1998.

City and County of San Francisco Planning Code, Section 313.3 the Office Affordable Housing Production Program Ordinance(OAHPP), applies only to office development *in areas outside* ~~However, Office Development on property under the jurisdiction of the San Francisco Redevelopment Agency is exempt from the current OAHPP Ordinance.~~ The OAHPP approach is used here only as an evaluation tool. The San Francisco Planning Department is presently evaluating ~~continued exemption of office development on property under the jurisdiction of the Redevelopment Agency, as well as~~ expansion of the OAHPP ordinance to apply to other non-residential land uses. Retail and entertainment, hotel, medical-related, cultural and institutional, and research and development are the additional building types and land use activities under study. *Proposed legislation developed by the Planning Department will be presented to the Planning Commission and the Board of Supervisors for adoption in late 1998 or early 1999.*

2. *CEQA does not require an analysis of socioeconomic effects and indicates that these effects "shall not be treated as significant affects on the environment." Nonetheless, socioeconomic effects "may be included in an EIR or may be presented in whatever form the agency desires" (State CEQA Guidelines Section 15131). In the absence of a legal requirement to include an analysis of socioeconomic effects, this environmental analysis, and others prepared in San Francisco, do not generally address socioeconomic issues per se, but focus on the potential secondary or indirect physical consequences of social or economic changes.*
3. City and County of San Francisco, *Downtown Plan Environmental Impact Report*, EE81.3, certified October 18, 1984.
4. City and County of San Francisco, *Community Safety Element, San Francisco General Plan*, April 1997.
5. US Department of Housing and Urban Development, *Guidelines for Evaluation and Control of Lead-based Paint Hazards*, June 1995 (Chapter 7, revised 1997)
6. Archeo-Tec Consulting Archeologists, *Archival Cultural Resources Evaluation of Proposed Forest City/Bloomington Development Project*, March 12, 1998. This report is on file at the Planning Department, Fifth Floor, 1660 Mission Street, San Francisco.

Appendix B

Wind

**WIND TUNNEL ANALYSIS FOR THE PROPOSED
FOREST CITY DEVELOPEMENT, SAN FRANCISCO**

Prepared for:

EIP Associates
601 Montgomery Street, Suite 500
San Francisco, CA 94111

June 1998

Donald Ballanti
Certified Consulting Meteorologist
1424 Scott Street
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I. INTRODUCTION

The proposed project runs from Market Street to Mission Street within the block bounded by Market, Fourth, Mission and Fifth Streets. The project would construct a mixed-use development providing new retail, entertainment, restaurant and cinema uses and would include a hotel. The project would retain the Market Street facade of the former Emporium department store, retain and reuse the Emporium dome and part of the rotunda, demolish and replace other existing buildings on the site between Jessie Street and Mission Street, close Jessie Street as an through connection between Fourth and Fifth Street, and realign Jessie Street with connections to Mission Street. The project would include a pedestrian bridge serving the new retail center from the existing Fifth and Mission Garage, and may include other improvements to that garage.

Four scenarios were tested in the wind tunnel:

- (1) existing conditions (including approved and under-construction projects),
- (2) conditions with the construction of the proposed project (Alternative 1),
- (3) conditions with the construction of the project with a modified hotel tower (Alternative 2), and
- (4) conditions with the construction of the project with no hotel tower (Alternative 3).

A wind tunnel study was performed in investigate the pedestrian wind environment around the proposed project site. Pedestrian-level wind speeds were measured at selected points for the existing site and with the addition of the project alternatives in order to quantify wind impacts in public spaces near the site and predict the acceptability of wind conditions near the site.

II. METHODOLOGY

Wind Tunnel Facilities

The study was conducted in the University of California, Davis, boundary-layer wind-tunnel under the direction of Dr. Bruce White. These tests, however, were performed independent of the University.

The U.C. Davis boundary-layer tunnel is an open-return type. The tunnel has an overall length of 22 meters (m) (72 ft.), a test section of 1.22 m (4 ft.) wide by 1.83 m (6 ft.) high, and an adjustable false ceiling. The adjustable ceiling and turbulence generators allow speeds within the tunnel to vary from one to eight meters per second (m/s), or 2.2 to 17.9 mph. The test area is 40 feet downwind of the inlet, with the fan downwind of the test area. The test section is 8 feet long, 5.5 feet high and 4 feet wide in the test section.

Model and Boundary Layer

A 1 inch = 50 feet scale model of the project site and the surrounding area was constructed. The model extended several blocks beyond the project boundaries in all directions. Several approved and under construction projects were included as part of the existing environment (Sony Metreon, Millennium Partners-Market Street, Moscone Center West).

Wind obstructions located further away from the project site were considered part of the general roughness of the site, and were modeled as part of the characteristic atmospheric boundary layer in the wind tunnel.

Simulation of the boundary layer in the natural wind is achieved by turbulence generators placed upwind of the test section. This allows for adjustment in the wind

characteristics to provide for different model scales and varying terrain upwind of the project.

Wind Measurements

Wind-speed measurements were made with a hot-wire anemometer, an instrument that directly relates rates of heat transfer to wind speeds by electronic signals. The hot-wire signals are proportional to the magnitude and steadiness of the wind. By measuring both the mean wind speeds and corresponding turbulence intensities, high wind speeds and gustiness (changes in wind speeds over short periods of time) could be detected. The ratio of near-surface speed to reference wind speed was calculated from the hot-wire measurements. The inherent uncertainty of measurements made with the hot-wire anemometer close to the surface of the model is plus or minus 5 percent of the true values.

A total of 32 velocity measurement locations were selected for this study located along sidewalk areas and other public spaces adjacent to and near the project site. The locations of measurement points are shown in Figure 1.

In accordance with the San Francisco Wind Ordinance methodology for wind tunnel tests the model was tested for four wind directions: northwest, west-northwest, west and west-southwest.

III. CRITERIA AND HISTORICAL WIND RECORDS

Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result increased wind speed and turbulence at street level.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four MPH have no noticeable effect on pedestrian comfort. With winds from four to eight MPH, wind is felt on the face. Winds from 8 to 13 MPH will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 MPH, the force of the wind will be felt on the body. At 26 MPH to 34 MPH wind, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 MPH increase difficulty with balance and gusts can blow people over.¹

The City of San Francisco Planning Code establishes wind criteria for C-3 Districts under Section 148 of the Planning Code. Section 148 of the Planning Code sets comfort levels of 7 MPH equivalent wind speed for public seating areas and 11 MPH equivalent wind speed for areas of substantial pedestrian use. In addition to comfort criteria San Francisco Planning Code establishes a wind hazard criterion. The hazard criterion is set at a hourly averaged windspeed of 26 MPH, which is not to be exceeded more than once during a year.

Predictions of wind speed are based upon historical wind records from the U.S. Weather Bureau weather station atop the old Federal Building at 50 United Nations Plaza during the years 1945-1950. This data base, comprised of 32,795 hourly observations is of sufficient length to provide a reliable estimate of future climatic conditions in San Francisco.

Table 1 shows that average wind speeds are greatest in the summer and least in the fall. Winds also exhibit a diurnal variation with the strongest winds occurring in the afternoon, and lightest winds occurring in the early morning.

Winds in San Francisco are most frequently from the west to northwest directions, reflecting the persistence of seabreezes. Wind direction is most variable in the winter. The approach of winter storms often results in southerly winds. Although not as

Table 1: Seasonal Frequency of Wind Direction and Average Speed (Knots)

Direction	January		April		July		October		Year	
	Freq. (%)	Av. Speed	Freq. (%)	Av. Speed	Freq. (%)	Av. Speed	Freq. (%)	Av. Speed	Freq. (%)	Av. Speed
N	12.5	7.9	2.2	11.0	0.3	6.0	3.3	6.6	5.0	7.2
NNE	1.3	5.6	0.7	6.1	0.3	6.8	0.7	6.6	0.8	6.0
NE	4.5	5.3	1.3	4.7	1.1	7.4	2.2	5.8	1.9	5.6
ENE	1.4	6.3	0.6	4.8	0.2	5.1	0.8	5.1	0.8	5.6
E	11.9	4.8	2.6	4.5	0.1	3.9	4.8	4.5	4.8	5.0
ESE	2.11	6.4	0.3	5.2	0.1	2.5	0.6	5.8	0.8	5.8
SE	9.1	6.4	2.4	7.8	0.2	5.0	3.7	6.6	4.2	6.8
SSE	2.8	5.6	0.3	3.8	0.1	3.0	1.3	9.0	1.2	6.4
S	6.7	5.0	4.2	7.1	1.1	4.9	4.5	7.5	4.1	6.4
SSW	1.0	4.8	0.4	4.1	0.1	3.0	1.7	12.8	0.9	8.6
SW	4.5	8.0	7.7	9.2	15.6	10.1	7.8	9.1	9.3	9.3
WSW	1.0	5.9	1.7	7.1	1.2	8.1	2.8	8.8	2.4	8.6
W	13.2	7.2	43.0	10.9	53.0	13.1	34.6	9.1	35.7	10.9
WNW	7.5	11.1	20.7	14.1	14.9	14.5	15.2	10.9	13.8	12.7
NW	11.5	7.7	9.3	10.7	10.7	11.4	10.8	8.5	10.0	9.7
NNW	1.2	5.7	0.6	10.8	0.6	8.5	0.5	7.5	0.7	8.3
CALM	7.7	---	2.1	---	0.3	---	4.6	---	3.7	---

frequent as westerly winds, these southerly winds are often strong. The strongest winds in San Francisco are typically from the south during the approach of a winter storm.²

V. ANALYSIS

The San Francisco wind code is based on wind acceptability criteria defined in terms of "equivalent wind speed" (EWS). EWS denotes the mean hourly wind speed adjusted to account for the expected turbulence intensity or gustiness at the site. The wind speed limits in the code were developed with an inherent turbulence intensity of 15%. When the measured turbulence intensity at a point is greater than 15%, the equivalent wind speed is calculated by multiplying the mean velocity at the point by a weighting factor according to the following formula:

$$\text{EWS} = V_m (2 \cdot \text{TI} + 0.7)$$

where:

V_m = mean pedestrian-level wind speed

TI = turbulence intensity

For measured turbulence intensities less than 15%, EWS is taken to be equal to V_m .

Each wind-tunnel measurement results in a ratio that relates the speed of ground-level wind to the speed at the reference elevation, in this case the height of the Old San Francisco Federal Building. The frequency with which a particular wind velocity is exceeded at any test location is then calculated by using the measured wind-tunnel ratio and a specified ground speed to determine the corresponding reference wind speed for each direction. In general, this gives different reference speeds for each major directional component of the wind. The wind data for San Francisco are then used to calculate the percentage of the time that the specific ground-level wind speed is

exceeded for each directional component. The sum of these is the total percentage of time that the specified ground-level wind speed is exceeded. A computer is used to calculate the total percentages for a series of wind speeds until the speed exceeded ten percent of the time is found, for each location.

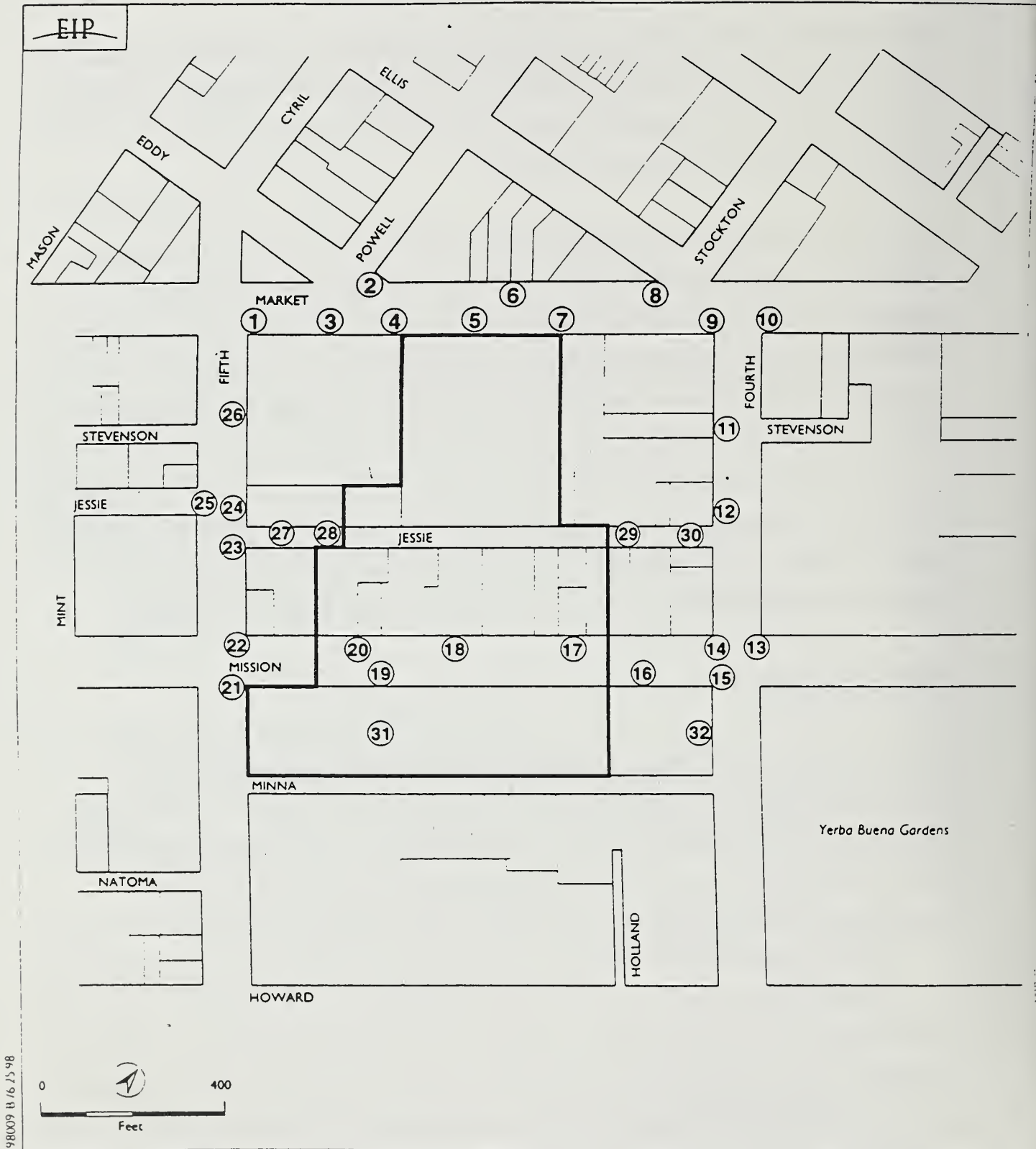
The mean wind speeds are compared to the comfort criterion of 11 mph for pedestrian areas, not to be exceeded more than 10 percent of the time. Separate calculations evaluate compliance with the hazard criterion. The wind data observed at the Old San Francisco Federal Building are not full hour average speeds as specified by the Code, so it is necessary to adjust the equivalent speeds to obtain the hourly average of 26 mph.³

The windspeed that would be exceeded 10% of the time at each measuring location is shown in Table 2. The locations of measurement points are shown in Figure 1. All points are pedestrian locations where the 11 MPH comfort criterion is applicable.

Existing Conditions

No violations of the wind hazard code were measured for the existing scenario, although it was approached atop the adjacent parking garage (location 31). The range of ground-level wind speeds was 6 to 14 mph. Exceedances of the pedestrian comfort criterion were found at 10 of the 30 sidewalk measurement locations for existing conditions, and both garage rooftop measurement locations (locations 31-32).

Figure 1: Wind Study Measurement Locations



SOURCE: EIP Associates / Donald J. Ballant

TABLE 2: Windspeed Exceeded 10% of the Time

Measurement Location	Existing	Existing + Project (Alt. 1)	Existing + Modified Hotel Tower (Alt. 2)	Existing + Project w/o Hotel Tower (Alt. 3)
1	10	10	10	10
2	11	10	10	10
3	11	11	11	11
4	12	12	12	12
5	13	12	12	11
6	11	11	11	11
7	11	11	11	11
8	9	10	10	10
9	9	12	11	11
10	8	10	9	9
11	10	11	11	11
12	13	13	15	15
13	13	14	14	12
14	9	9	9	8
15	12	9	9	9
16	11	10	9	8
17	8	10	10	7
18	6	8	8	6
19	7	15	15	12
20	7	17	17	11
21	13	12	12	12

TABLE 2: Windspeed Exceeded 10% of the Time (Cont.)

Measurement Location	Existing	Existing + Project (Alt. 1)	Existing + Modified Hotel Tower (Alt. 2)	Existing + Project w/o Hotel Tower (Alt. 3)
22	14	13	13	12
23	14	13	13	14
24	13	13	12	12
25	9	9	9	9
26	10	10	9	9
27	9	8	8	8
28	11	9	9	10
29	8	11	11	10
30	12	7	7	7
31	17	19*	19*	16
32	18	17	17	16

Measurements exceeding the comfort criterion are shown in **bold**.

* Exceeds San Francisco wind hazard criterion.

Existing + Alternative 1 (Proposed Project)

One violation of the wind hazard code was measured on the garage rooftop. This alternative had a mixed impact on wind, with 11 points having increased wind, 11 points having decreased wind and 10 points having unchanged winds. The range of ground-

level wind speeds was 7 to 17 mph. Number of ground-level locations exceeding the comfort criterion was increased to 11 of 30.

Winds were generally unchanged along Market Street. The largest increases were found along both sides of Mission Street adjacent the project site.

Existing + Alternative 2 (Modified Hotel Tower)

One violation of the wind hazard code was measured on the garage rooftop (location 31). This alternative had a mixed impact on wind, with 12 points having increased wind, 13 points having decreased wind and 7 points having unchanged winds. The range of ground-level wind speeds was 7 to 17 mph. Number of ground-level locations exceeding the comfort criterion remains at 10 of 30.

Winds were generally unchanged along Market Street. The largest increases were found along both sides of Mission Street adjacent the project site.

Existing + Alternative 3 (No Hotel Tower)

No violations of the wind hazard code were measured. This alternative had a generally positive impact on wind, with 8 points having increased wind, 16 points having decreased wind and 8 points having unchanged winds. The range of ground-level wind speeds was 6 to 15 mph. The number of ground-level locations exceeding the comfort criterion reduced to 8 of 30.

VI. MITIGATION

Exceedances of the hazard wind criterion would be considered a significant adverse impact requiring appropriate mitigation. A single location atop the Fifth and Mission parking garage across Mission Street from the project site is predicted to exceed this criterion for Alternatives 1 and 2.

The occurrence of winds exceeding the hazard criterion atop the Fifth and Mission parking garage had previously been revealed by wind tunnel tests conducted for the Moscone Center Expansion Project.⁴ Exceedance of the hazard criterion was found in these studies for existing conditions, and the exceedance was eliminated by the construction of the Moscone Center Expansion Project.

The existing condition scenario for the Forest City Project is identical to the project scenario for the Moscone Center Expansion Project, since the existing condition includes the approved Moscone Center Expansion Project. The results of the current wind tunnel testing confirm the earlier results that the exceedance of the hazard criterion would be eliminated by construction of the Moscone Center Expansion Project.

Compliance with San Francisco's wind hazard criterion is based on prediction of the frequency of winds greater than 26 MPH, averaged over 1-hour, for no more than 1 hour per year. The predicted frequencies of winds exceeding 26 MPH at location 31 for Project Alternatives 1 and 2 are 2.0 and 1.5 days per year, respectively.

The effect of Alternatives 1 and 2 is to increase winds at point 31 from just below the hazard criterion to just above the hazard criterion. Mitigation measures are available that would provide the very small amount of shelter that would reduce rooftop winds at the garage to below the hazard criterion. Landscaping, wind screens, fences or walls near major pedestrian corridors on the southern half of the garage roof would provide ample shelter to reduce winds to below the hazard criterion. These wind-reducing elements should be aligned to provide maximum wind shelter for a west-northwest wind direction, which is the wind direction that contributes most to the exceedance of the hazard criterion. Wind-sheltering elements should be porous (roughly 50% open).

NOTES: Alternatives

1. Edward Arens, Designing for an Acceptable Wind Environment, Transportation Engineering Journal, March 1981.
2. E. Jan Null, Climate of San Francisco, Report No. NOAA-TM-NWS WR-126, 1978.
3. Arens, E., "Designing for Acceptable Wind Environment," Transactions Engineering Journal, ASCE 107, No. TE 2, 1981, pp. 127-141.
4. Environmental Science Associates, Technical Memorandum about Potential Wind Conditions for the Proposed Moscone Center Expansion Project Building, September 15, 1997; and Technical Memorandum, October 31, 1997.

Appendix C

Transportation

SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS BASED ON DELAY

Level of Service	Stopped Delay (sec/veh)	Typical Traffic Condition
D	# 5.0	Insignificant Delays: Progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all.
B	5.1 - 15.0	Minimal Delays: Generally good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay. Drivers begin to feel restricted.
C	15.1 - 25.0	Acceptable Delays: Fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear, though many still pass through the intersection without stopping. Most drivers feel somewhat restricted.
D	25.1 - 40.0	Tolerable Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. Queues may develop but dissipate rapidly, without excessive delays.
E	40.1 - 60.0	Significant Delays: Considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles and long queues of vehicles form upstream.
F	> 60.0	Excessive Delays: Considered to be unacceptable to most drivers. Often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay levels. Queues may block upstream intersections.

Sources: *Highway Capacity Manual*, Special Report No. 209, Third Edition, Transportation Research Board, Washington, D.C. 1985 (Updated 1994); Kolve Engineering, Inc.

LEVEL OF SERVICE A

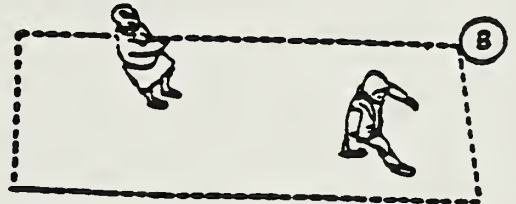
Pedestrian Space: ≥ 130 sq ft/ped Flow Rate: ≤ 2 ped/min/ft

At walkway LOS A, pedestrians basically move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.

**LEVEL OF SERVICE B**

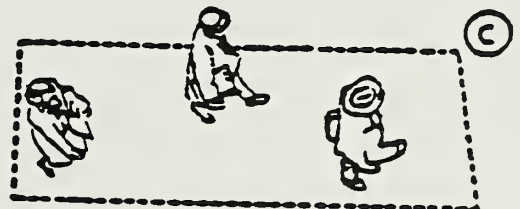
Pedestrian Space: ≥ 40 sq ft/ped Flow Rate: ≤ 7 ped/min/ft

At LOS B, sufficient area is provided to allow pedestrians to freely select walking speeds, to bypass other pedestrians, and to avoid crossing conflicts with others. At this level, pedestrians begin to be aware of other pedestrians, and to respond to their presence in the selection of walking path.

**LEVEL OF SERVICE C**

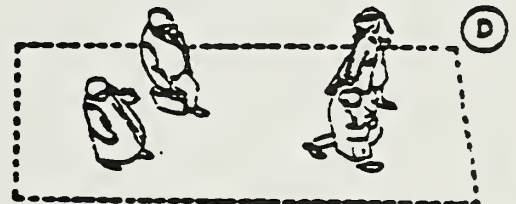
Pedestrian Space: ≥ 24 sq ft/ped Flow Rate: ≤ 10 ped/min/ft

At LOS C, sufficient space is available to select normal walking speeds, and to bypass other pedestrians in primarily unidirectional streams. Where reverse-direction or crossing movements exist, minor conflicts will occur, and speeds and volume will be somewhat lower.

**LEVEL OF SERVICE D**

Pedestrian Space: ≥ 15 sq ft/ped Flow Rate: ≤ 15 ped/min/ft

At LOS D, freedom to select individual walking speed and to bypass other pedestrians is restricted. Where crossing or reverse-flow movements exist, the probability of conflict is high, and its avoidance requires frequent changes in speed and position. The LOS provides reasonably fluid flow; however, considerable friction and interaction between pedestrians is likely to occur.

**LEVEL OF SERVICE E**

Pedestrian Space: ≥ 6 sq ft/ped Flow Rate: ≤ 25 ped/min/ft

At LOS E, virtually all pedestrians would have their normal walking speed restricted, requiring frequent adjustment of gait. At the lower range of this LOS, forward movement is possible only by "shuffling." Insufficient space is provided for passing of slower pedestrians. Cross- or reverse-flow movements are possible only with extreme difficulties. Design volumes approach the limit of walkway capacity, with resulting stoppages and interruptions to flow.

**LEVEL OF SERVICE F**

Pedestrian Space: ≤ 6 sq ft/ped Flow Rate: variable

At LOS F, all walking speeds are severely restricted, and forward progress is made only by "shuffling." There is frequent, unavoidable contact with other pedestrians. Cross- and reverse-flow movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristic of queued pedestrians than of moving pedestrian streams.



Figure 13-8. Illustration of walkway levels of service.

Source: Highway Capacity Manual, Special Report 209, Chapter 13, TRB, 1985

Appendix D

Air Quality

D. AIR QUALITY

Criteria pollutants are described briefly below. They include ozone (and its precursors, ROG and NO_x), CO, NO_2 , SO_2 , and PM_{10} .

OZONE

Ozone is a secondary pollutant that forms from the interaction of ROG and NO_x in the presence of sunlight. Motor vehicles are the primary sources of ROG and NO_x in the Bay Area. Ozone standards have been violated most often in the Santa Clara, Livermore, and Diablo Valleys because local topography and meteorological conditions favor the buildup of ozone and its precursors there.

CARBON MONOXIDE

In 1995, about 65% of the CO in the Bay Area was generated by motor vehicles./1/ The one-hour and eight-hour CO standards have been occasionally exceeded in San Francisco, San Jose, and Vallejo, which are areas with high traffic volumes and frequent surface inversions during the winter months. Future compliance strategies include stricter motor vehicle emission limits statewide, with local biannual motor vehicle inspection/maintenance and transportation control measures.

PARTICULATE MATTER

Particulate levels in the Bay Area are low near the coast. Levels increase with distance inland and reach their highest levels in dry, sheltered valleys, such as the Santa Clara, Diablo, and Livermore Valleys. The largest human-caused sources are motor vehicle travel over paved and unpaved roads, demolition and construction activities, and agricultural operations and burning. Natural sources (i.e., wind-raised dust) are also significant. Particulate standards refer to particulates that are small enough to be inhaled (i.e., PM_{10} ,

those less than 10 microns in diameter) or $PM_{2.5}$, those less than 2.5 microns in diameter./2/
The state ambient air quality standards for PM_{10} are exceeded regularly in the Bay Area.

NITROGEN DIOXIDE

The major sources of NO_x are vehicular, residential, and commercial fuel combustion. Concentrations of NO_2 , the most abundant form of ambient NO_x , are highest in the South Bay. No NO_2 standard violations have been measured at any monitoring station in the Bay Area since the early 1980's.

SULFUR DIOXIDE

Burning of high sulfur fuels for activities such as electricity generation, petroleum refining, and shipping is the major source of SO_2 . The highest SO_2 levels are recorded by monitoring stations located in a relatively narrow crescent along the San Francisco Bay shore of northern Contra Costa County, where major petroleum refineries are located. The SO_2 standard is currently being met throughout the Bay Area.

LEAD

The Bay Area is in attainment for both the federal lead standard of 1.5 micrograms per cubic meter (based on a calendar quarter averaging time) and state lead standard of 1.5 micrograms per cubic meter (based on a 30-day average). Lead concentrations have dropped substantially since the introduction of unleaded gasoline. In the last 15 monitoring years, ambient concentrations have not approached the lead standards, and no violations have been reported. The highest concentration recorded in 1996 was 0.48 microgram per cubic meter, approximately one-third of the standard.

Federal and state standards for these pollutants are presented in Table D.1.

**TABLE D.1
FEDERAL AND STATE AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standard/a/	Federal Standard/b,c/
Ozone	1-hour	0.09 ppm	0.12 ppm
Carbon Monoxide	1-hour	20.00 ppm	35.00 ppm
	8-hour	9.00 ppm	9.00 ppm
Nitrogen Dioxide	1-hour	0.25 ppm	—
	Annual Average	—	0.053 ppm
Sulfur Dioxide	1-hour	0.25 ppm	—
	3-hour	—	1,300 $\mu\text{g}/\text{m}^3$
	24-hour	0.04 ppm	365 $\mu\text{g}/\text{m}^3$
	Annual Average	—	80 $\mu\text{g}/\text{m}^3$
Particulate Matter (PM_{10})	24-hour	50 $\mu\text{g}/\text{m}^3$	150 $\mu\text{g}/\text{m}^3$
	Annual Geometric Mean	30 $\mu\text{g}/\text{m}^3$	—
	Annual Arithmetic Mean	—	50 $\mu\text{g}/\text{m}^3$

Notes:

ppm = parts per million by volume
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter
 — = No standard in this category

- California standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter (PM_{10}) are values that are not to be exceeded.
- National standards, other than for ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is "not exceeded" when the expected number of days per calendar year with maximum hourly average concentration above the standard is equal to or less than one.
- In July 1997, the U.S. EPA promulgated new standards for both ozone and particulate matter. There may be legislative or legal changes to the new standards. The U.S. EPA's new ozone standard is 0.08 ppm averaged over eight hours, rather than the existing 0.12 ppm averaged over one hour. Under the new ozone standard, it will be much more difficult for the Bay Area to achieve compliance. The former particulate standards limited concentrations of particulate matter less than 10 microns in diameter (PM_{10}). Due to increased concern over smaller particulate matter being responsible for health impacts, the new standards limit concentrations of particulate matter 2.5 microns or less in diameter ($\text{PM}_{2.5}$). The new standard will be implemented in 2000 as the attainment status is being based on 1997, 1998, and 1999 monitoring data.

Source: EIP Associates.

The potential human health effects of these air pollutants are presented in Table D.2.

TABLE D.2
HEALTH EFFECTS SUMMARY OF THE MAJOR CRITERIA AIR POLLUTANTS

Air Pollutant	Adverse Effects
Ozone	Eye irritation. Respiratory function impairment.
Carbon Monoxide	Impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin. Aggravation of cardiovascular disease. Impairment of central nervous system function. Fatigue, headache, confusion and dizziness. Can be fatal in the case of very high concentrations in enclosed places.
Nitrogen Dioxide	Risk of acute and chronic respiratory illness.
Sulfur Dioxide	Aggravation of chronic obstruction lung disease. Increased risk of acute and chronic respiratory illness.
Particulate Matter (PM ₁₀)	Increased risk of chronic respiratory illness with long exposure. Altered lung function in children. With SO ₂ , may produce acute illness.
Particulate Matter (PM _{2.5})	May be inhaled and possibly lodge in and/or irritate the lungs.

Source: Bay Area Air Quality Management District Air Quality Handbook, 1993; Zannetti, Paolo, *Air Pollution Modeling*, 1990.

NOTES - Air Quality Appendix

1. BAAQMD, *1994 Clean Air Plan*, 1994.
2. In July 1997, the U.S. EPA promulgated new standards for both ozone and particulate matter. There may yet be changes to the new standards.

PLACE
POSTAGE
HERE

San Francisco Planning Department
Major Environmental Analysis
1660 Mission Street, 5th Floor
San Francisco, CA 94103

Attn: Joan Kugler, EIR Coordinator
98.090E - Yerba Buena Redevelopment Project Area
Expansion / Emporium Site Development

PLEASE CUT ALONG DOTTED LINE

RETURN REQUEST REQUIRED FOR FINAL
ENVIRONMENTAL IMPACT REPORT

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

TO: San Francisco Planning Department,
Major Environmental Analysis

Please send me a copy of the Final EIR.

Signed: _____

Print Your Name and Address Below

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